DAIKIN

Split

Air Conditioning Technical Data

RXJ-N

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RXJ-N

1 Features

- Choosing for an R-32 product, reduces the environmental impact with 68% compared to R-410A and leads directly to lower energy consumption thanks to its high energy efficiency
- Daikin outdoor units are neat, sturdy and can easily be mounted 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
- Outdoor units for pair application
- Anti-corrosion treated outdoor heat exchanger fin

Outdoor unit
silent operation

2 Specifications

2-1 Capacity and Power input				FTXJ50MS/RXJ50N
Indoor unit				FTXJ50MV1BS
Outdoor unit				RXJ50N2V1B
Cooling capacity	Min.		kW	1.40
			Btu/h	4,800
			kcal/h	1,200
	Nom.		kW	4.80
			Btu/h	16,400
			kcal/h	4,300
	Max.		kW	5.50
			Btu/h	18,800
			kcal/h	4,730
Heating capacity	Min.		kW	1.10
			Btu/h	3,800
			kcal/h	950
	Nom.		kW	5.80
			Btu/h	19,800
			kcal/h	4,990
	Max.		kW	7.00
			Btu/h	23,900
			kcal/h	6,020
Power input	Cooling	Nom.	kW	1.43
	Heating	Nom.	kW	1.59
Space cooling	Capacity	Pdesign	kW	4.80
	Energy efficiency class			A++
	SEER			7.02
	Annual energy consumption		kWh/a	239
	A Condition (35°C - 27/19)	Pdc	kW	4.80
		EERd		3.35
		Power input	kW	1.43
	B Condition (30°C - 27/19)	Pdc	kW	3.47
		EERd		5.24
		Power input	kW	0.66
	C Condition (25°C - 27/19)	Pdc	kW	2.36
		EERd		8.64
		Power input	kW	0.27
	D Condition (20°C - 27/19)	Pdc	kW	2.17
		EERd		12.00
		Power input	kW	0.18

2 Specifications

2-1 Capacity and Power input					FTXJ50MS/RXJ50N
Space heating (Average climate)	Capacity	Pdesign		kW	4.60
	Energy efficiency class				A+
	SCOP/A				4.28
	SCOPnet/A				4.30
	Pdh Heating capacity at -10°			kW	4.16
	Annual energy consumption			kWh/a	1,505
	Required back up heating cap at design conditions			kW	0.44
	TOL	Tol (temperature operating limit)		°C	-15
		Pdh (declared heating cap)		kW	4.12
		COPd (declared COP)			2.16
		Power input		kW	1.91
	TBivalent	Tbiv (bivalent temperature)		°C	-7
		Pdh (declared heating cap)		kW	4.19
		COPd (declared COP)			2.47
		Power input		kW	1.70
	A Condition (-7°C)	Pdh (declared heating cap)		kW	4.19
		COPd (declared COP)			2.47
		Power input		kW	1.70
	B Condition (2°C)	Pdh (declared heating cap)		kW	2.49
		COPd (declared COP)			4.28
		Power input		kW	0.58
	C Condition (7°C)	Pdh (declared heating cap)		kW	1.63
		COPd (declared COP)			5.81
		Power input		kW	0.28
	D Condition (12°C)	Pdh (declared heating cap)		kW	1.87
		COPd (declared COP)			7.32
		Power input		kW	0.26
Current	Nominal running current (RLA) - 50Hz	Cooling		A	6.52
		Heating		A	7.13
Cooling	Cdc (Degradation cooling)				0.25
Heating	Cdh (Degradation heating)				0.25
Cooling function included					Yes
Heating function included					Yes
Average climate included					Yes
Cold season included					No
Warm season included					Yes
Ecolabel logo					No
Eurovent	Sound power level outdoor	Cooling	Nom.	dBA	63.0
	Sound power level indoor	Cooling	Nom.	dBA	60.0
	Piping length	Cooling	Measuring condition	m	5.0
Nominal efficiency	EER				3.35
	COP				3.65
	Energy labeling Directive	Cooling			A
		Heating			A

2 Specifications

2-1 Capacity and Power input					FTXJ50MS/RXJ50N
Power consumption in other than active mode	Crankcase heater mode	PCK		W	0.0
	Off mode	POFF		W	1.0
	Standby mode	Cooling	PSB	W	1.0
		Heating	PSB	W	1.0
	Thermostat-off mode	PTO	Cooling	W	12.0
			Heating	W	13.0
Power factor	Nominal	Cooling		%	95.40
		Heating		%	97.05
Space heating (Warm climate)	Capacity	Pdesignh		kW	2.49
	Energy efficiency class				A+++
	SCOP				5.77
	SCOPnet				5.86
	Annual energy consumption			kWh/a	604
	Required back up heating cap at design conditions			kW	0.00
	TOL	Tol (temperature operating limit)		°C	-15
		Pdh (declared heating cap)		kW	4.12
		COPd (declared COP)			2.16
		Power input		kW	1.91
	TBivalent	Tbiv (bivalent temperature)		°C	2
		Pdh (declared heating cap)		kW	2.49
		COPd (declared COP)			4.28
		Power input		kW	0.58
	B Condition (2°C)	Pdh (declared heating cap)		kW	2.49
		COPd (declared COP)			4.28
		Power input		kW	0.58
	C Condition (7°C)	Pdh (declared heating cap)		kW	1.63
		COPd (declared COP)			5.81
		Power input		kW	0.28
	D Condition (12°C)	Pdh (declared heating cap)		kW	1.87
		COPd (declared COP)			7.32
		Power input		kW	0.26

Notes

See separate drawing for electrical data

Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB, outdoor temperature: 35°CDB, equivalent refrigerant piping: 5m, level difference: 0m.

Nominal heating capacities are based on: indoor temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, equivalent refrigerant piping: 5m, level difference: 0m.

2-2 Capacity and Power input			FTXJ50MW/RXJ50N
Indoor unit			FTXJ50MV1BW
Outdoor unit			RXJ50N2V1B
Cooling capacity	Min.	kW	1.40
		Btu/h	4,800
		kcal/h	1,200
	Nom.	kW	4.80
		Btu/h	16,400
		kcal/h	4,300
	Max.	kW	5.50
		Btu/h	18,800
		kcal/h	4,730

2 Specifications

2-2 Capacity and Power input				FTXJ50MW/RXJ50N
Heating capacity	Min.		kW	1.10
			Btu/h	3,800
			kcal/h	950
	Nom.		kW	5.80
			Btu/h	19,800
			kcal/h	4,990
	Max.		kW	7.00
			Btu/h	23,900
			kcal/h	6,020
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	Heating	Nom.	kW	1.59
Space cooling	Capacity	Pdesign	kW	4.80
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	SEER			7.02
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	A Condition (35°C - 27/19)	Pdc	kW	4.80
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		Power input	kW	1.43
	B Condition (30°C - 27/19)	Pdc	kW	3.47
		EERd		5.24
		Power input	kW	0.66
	C Condition (25°C - 27/19)	Pdc	kW	2.36
		EERd		8.64
		Power input	kW	0.27
	D Condition (20°C - 27/19)	Pdc	kW	2.17
		EERd		12.00
		Power input	kW	0.18

2 Specifications

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	Energy efficiency class				A+
	SCOP/A				4.28
	SCOPnet/A				4.30
	Pdh Heating capacity at -10°			kW	4.16
	Annual energy consumption			kWh/a	1,505
	Required back up heating cap at design conditions			kW	0.44
	TOL	Tol (temperature operating limit)		°C	-15
		Pdh (declared heating cap)		kW	4.12
		COPd (declared COP)			2.16
		Power input		kW	1.91
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		COPd (declared COP)			2.47
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		COPd (declared COP)			4.28
		Power input		kW	0.58
	C Condition (7°C)	Pdh (declared heating cap)		kW	1.63
		COPd (declared COP)			5.81
		Power input		kW	0.28
	D Condition (12°C)	Pdh (declared heating cap)		kW	1.87
		COPd (declared COP)			7.32
		Power input		kW	0.26
Current	Nominal running current (RLA) - 50Hz	Cooling		A	6.52
		Heating		A	7.13
Cooling	Cdc (Degradation cooling)				0.25
Heating	Cdh (Degradation heating)				0.25
Cooling function included					Yes
Heating function included					Yes
Average climate included					Yes
Cold season included					No
Warm season included					Yes
Ecolabel logo					No
Eurovent	Sound power level outdoor	Cooling	Nom.	dBA	63.0
	Sound power level indoor	Cooling	Nom.	dBA	60.0
	Piping length	Cooling	Measuring condition	m	5.0
Nominal efficiency	EER				3.35
	COP				3.65
	Energy labeling Directive	Cooling			A
		Heating			A

2 Specifications

2-2 Capacity and Power input					FTXJ50MW/RXJ50N
Power consumption in other than active mode	Crankcase heater mode	PCK		W	0.0
	Off mode	POFF		W	1.0
	Standby mode	Cooling	PSB	W	1.0
		Heating	PSB	W	1.0
	Thermostat-off mode	PTO	Cooling	W	12.0
			Heating	W	13.0
Power factor	Nominal	Cooling		%	95.40
		Heating		%	97.05
Space heating (Warm climate)	Capacity	Pdesignh		kW	2.49
	Energy efficiency class				A+++
	SCOP				5.77
	SCOPnet				5.86
	Annual energy consumption			kWh/a	604
	Required back up heating cap at design conditions			kW	0.00
	TOL	Tol (temperature operating limit)		°C	-15
		Pdh (declared heating cap)		kW	4.12
		COPd (declared COP)			2.16
		Power input		kW	1.91
	TBivalent	Tbiv (bivalent temperature)		°C	2
		Pdh (declared heating cap)		kW	2.49
		COPd (declared COP)			4.28
		Power input		kW	0.58
	B Condition (2°C)	Pdh (declared heating cap)		kW	2.49
		COPd (declared COP)			4.28
		Power input		kW	0.58
	C Condition (7°C)	Pdh (declared heating cap)		kW	1.63
		COPd (declared COP)			5.81
		Power input		kW	0.28
	D Condition (12°C)	Pdh (declared heating cap)		kW	1.87
		COPd (declared COP)			7.32
		Power input		kW	0.26

Notes

See separate drawing for electrical data

Nominal cooling capacities are based on: indoor temperature: 27°CDB, 19°CWB, outdoor temperature: 35°CDB, equivalent refrigerant piping: 5m, level difference: 0m.

Nominal heating capacities are based on: indoor temperature: 20°CDB, outdoor temperature: 7°CDB, 6°CWB, equivalent refrigerant piping: 5m, level difference: 0m.

2-3 Technical Specifications				RXJ50N
Capacity control	Method			Variable (inverter)
Casing	Colour			Ivory white
Dimensions	Unit	Height	mm	734
		Width	mm	870
		Depth	mm	373
	Packed unit	Height	mm	820
		Width	mm	1,050
		Depth	mm	480
Weight	Unit		kg	50
	Packed unit		kg	54
Packing	Weight		kg	4

2 Specifications

2-3 Technical Specifications					RXJ50N
Heat exchanger	Length			mm	920
	Rows	Quantity			2
	Fin pitch			mm	1.40
	Stages	Quantity			32
	Passes	Quantity			2.2
	Tube type				ø7 Hi-XD
	Fin	Type			Waffle fin (PE)
Compressor	Model				2YC40JXD#C
	Oil Amount			cm^3	650
	Type				Hermetically sealed swing compressor
	Output			W	1,300
	Oil Type				FW68DA
Fan	Type				Propeller fan
	Air flow rate	Cooling	Nom.	m^3/min	46.6
				cfm	1,645
		Heating	Nom.	m^3/min	44.1
				cfm	1,557
Fan motor	Model				D55F-31
	Output			W	55
	Speed	Cooling	High	rpm	760
			Nom.	rpm	760
			Low	rpm	740
		Heating	High	rpm	720
			Nom.	rpm	720
			Low	rpm	660
Sound power level	Cooling			dBA	63.0
	Heating			dBA	63.0
Sound pressure level	Cooling	Nom.		dBA	48.0
	Heating	Nom.		dBA	48.0
Operation range	Cooling	Ambient	Min.	°CDB	-10
			Max.	°CDB	46
	Heating	Ambient	Min.	°CWB	-15
			Max.	°CWB	18
Refrigerant	Type				R-32
	Charge			kg	1.15
				TCO_2eq	0.78
	GWP				675
Piping connections	Liquid	OD		mm	6,4
	Gas	OD		mm	12.7
	Drain	OD		mm	16
	Piping length	OU - IU	Max.	m	30
	Additional refrigerant charge			kg/m	0.02 (for piping length exceeding 10m)
	Level difference	IU - OU	Max.	m	20
	Heat insulation				Both liquid and gas pipes

Standard Accessories : Drain plug; Quantity : 1;

Standard Accessories : Installation manual; Quantity : 1;

Standard Accessories : Refrigerant charge label; Quantity : 1;

Standard Accessories : Multilingual fluorinated greenhouse gases labels; Quantity : 1;

Standard Accessories : Drain cap (1); Quantity : 6;

Standard Accessories : Drain cap (2); Quantity : 3;

2-4 Electrical Specifications			RXJ50N
Power supply	Phase		1~
	Frequency	Hz	50
	Voltage	V	220-240

2 Specifications

2-4 Electrical Specifications			RXJ50N
Wiring connections	For power supply	Quantity	3
		Remark	Earth wire included
	For connection with indoor	Quantity	4
		Remark	Earth wire included

Notes

See separate drawing for operation range

See separate drawing for electrical data

Contains fluorinated greenhouse gases

3 Electrical data

3 - 1 Electrical Data

RXJ-N

Unit combination restrictions		Power supply					COMP		OFM		IFM	
Indoor	Outdoor	①	②	③	MCA	MFA	RHz	RLA	kW	FLA	kW	FLA
FTXJ20K3V1BW FTXJ20K3V1BS	RXJ20LV1B	50 50 50	220 230 240	MAX. 50Hz 264V MIN. 50Hz 198V	7,9	10	40	2,4 2,3 2,2	0,023	0,11	0,029	0,15
FTXJ25K3V1BW FTXJ25K3V1BS	RXJ25LV1B	50 50 50	220 230 240	MAX. 50Hz 264V MIN. 50Hz 198V	7,9	10	44	2,7 2,6 2,5	0,023	0,11	0,029	0,15
FTXJ35K3V1BW FTXJ35K3V1BS	RXJ35LV1B	50 50 50	220 230 240	MAX. 50Hz 264V MIN. 50Hz 198V	8,8	10	67	4,3 4,1 4,0	0,023	0,11	0,029	0,15
FTXJ50K3V1BW FTXJ50K3V1BS	RXJ50LV1B	50 50 50	220 230 240	MAX. 50Hz 264V MIN. 50Hz 198V	13,9	15	65	6,2 6,0 5,8	0,068	0,34	0,029	0,15
FTXJ50MV1BW FTXJ50MV1BS	RXJ50MV1B	50 50 50	220 230 240	MAX. 50Hz 264V MIN. 50Hz 198V	13,9	15	65	6,2 6,0 5,8	0,068	0,34	0,029	0,15
FTXJ20MV1BW FTXJ20MV1BS	RXJ20M2V1B	50 50 50	220 230 240	MAX. 50Hz 264V MIN. 50Hz 198V	7,9	10	40	2,4 2,3 2,2	0,023	0,11	0,029	0,15
FTXJ25MV1BW FTXJ25MV1BS	RXJ25M2V1B	50 50 50	220 230 240	MAX. 50Hz 264V MIN. 50Hz 198V	7,9	10	44	2,7 2,6 2,5	0,023	0,11	0,029	0,15
FTXJ35MV1BW FTXJ35MV1BS	RXJ35M2V1B	50 50 50	220 230 240	MAX. 50Hz 264V MIN. 50Hz 198V	8,8	10	67	4,3 4,1 4,0	0,023	0,11	0,029	0,15
FTXJ50MV1BW FTXJ50MV1BS	RXJ50M2V1B	50 50 50	220 230 240	MAX. 50Hz 264V MIN. 50Hz 198V	14,4	15	65	6,2 6,0 5,8	0,068	0,34	0,029	0,15
FTXJ50MV1BW FTXJ50MV1BS	RXJ50N2V1B	50 50 50	220 230 240	MAX. 50Hz 264V MIN. 50Hz 198V	12,5	13	56	5,1 4,8 4,6	0,056	0,37	0,029	0,15

Notes

1 The RLA is based on the following conditions.
Indoor temperature 27°C DB / 19°C WB
Outdoor temperature 35°C DB

2 Select the wire size according to the MCA.

3 The maximum allowable voltage that is unbalanced between phases is 2%.

4 Use a circuit breaker instead of a fuse.

Symbols

① Hz
② Voltage
② Voltage range
MCA Minimum Circuit Ampere [A]
MFA Maximum Fuse Ampere [A]
RLA Rated load amps [A]
OFM Outdoor fan motor
IFM Indoor fan motor
FLA Full Load Ampere (A)
kW Fan motor rated output [kW]
RHz Rated operating frequency [Hz]

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4 Capacity tables

4 - 1 Cooling/Heating Capacity Tables

FTXJ50MW / RXJ50N
FTXJ50MS / RXJ50N

Cooling 50 Hz 220 - 240 V

AFR	10,9
BF	0,09

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
14,0	20	3,69	2,88	1,01	3,69	2,88	1,14	3,69	2,88	1,27	3,69	2,88	1,31	3,69	2,88	1,39	3,69	2,88	1,52
16,0	22	4,73	3,28	1,10	4,71	3,27	1,23	4,50	3,16	1,34	4,60	3,21	1,38	4,46	3,14	1,42	4,24	3,03	1,55
18,0	25	5,15	3,50	1,13	4,92	3,40	1,24	4,71	3,30	1,35	4,82	3,35	1,38	4,68	3,28	1,43	4,46	3,18	1,56
19,0	27	5,25	3,66	1,13	5,03	3,56	1,24	4,82	3,46	1,35	4,93	3,51	1,38	4,80	3,45	1,43	4,58	3,35	1,56
22,0	30	5,57	3,52	1,14	5,36	3,43	1,25	5,14	3,34	1,36	5,27	3,39	1,39	5,14	3,34	1,45	4,91	3,25	1,57
24,0	32	5,78	3,42	1,15	5,57	3,33	1,26	5,35	3,25	1,37	5,49	3,30	1,40	5,36	3,25	1,46	5,13	3,17	1,57

Heating 50 Hz 220 - 240 V

AFR	12,6

Indoor temperature	Outdoor temperature [°C WB]											
EDB	-15		-10		-5		0		6		10	
°C	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
15,0	2,77	1,28	3,32	1,34	3,88	1,41	4,43	1,48	6,00	1,55	6,52	1,61
20,0	2,60	1,32	3,15	1,38	3,71	1,45	4,26	1,51	5,80	1,59	6,32	1,64
22,0	2,53	1,33	3,08	1,39	3,64	1,46	4,19	1,53	5,72	1,60	6,24	1,66
24,0	2,46	1,34	3,01	1,41	3,57	1,47	4,12	1,54	5,64	1,62	6,16	1,67
25,0	2,43	1,35	2,98	1,42	3,54	1,48	4,09	1,55	5,60	1,63	6,12	1,68
27,0	2,36	1,37	2,91	1,43	3,47	1,50	4,02	1,56	5,52	1,64	6,04	1,69

Symbols

AFR : Air flow rate [m³/min]
BF : Bypass factor
EWB : Entering wet-bulb temperature (°C WB)
EDB : Entering dry-bulb temperature (°C DB)
TC : Total capacity [kW]
SHC : Sensible heat capacity [kW]
PI : Power input [kW]

Notes

1. The ratings shown are net capacities which include a deduction for indoor fan motor heat.
2. On the figure the □ mark shows the rated capacity and rated coefficient of the power input.
3. The total capacity, power input and sensible heat capacity must be calculated by interpolation, using the figures in the table (figures not in the table may not be used in the calculation).
4. In case the sensible heat capacity is not mentioned in the table, please calculate it using an approximation between two values in direct proportion.
5. The capacities are based on the following conditions:
   Corresponding refrigerant piping length: 5 m
   Level difference: 0m
6. The air flow rate and bypass factor are mentioned in the table.

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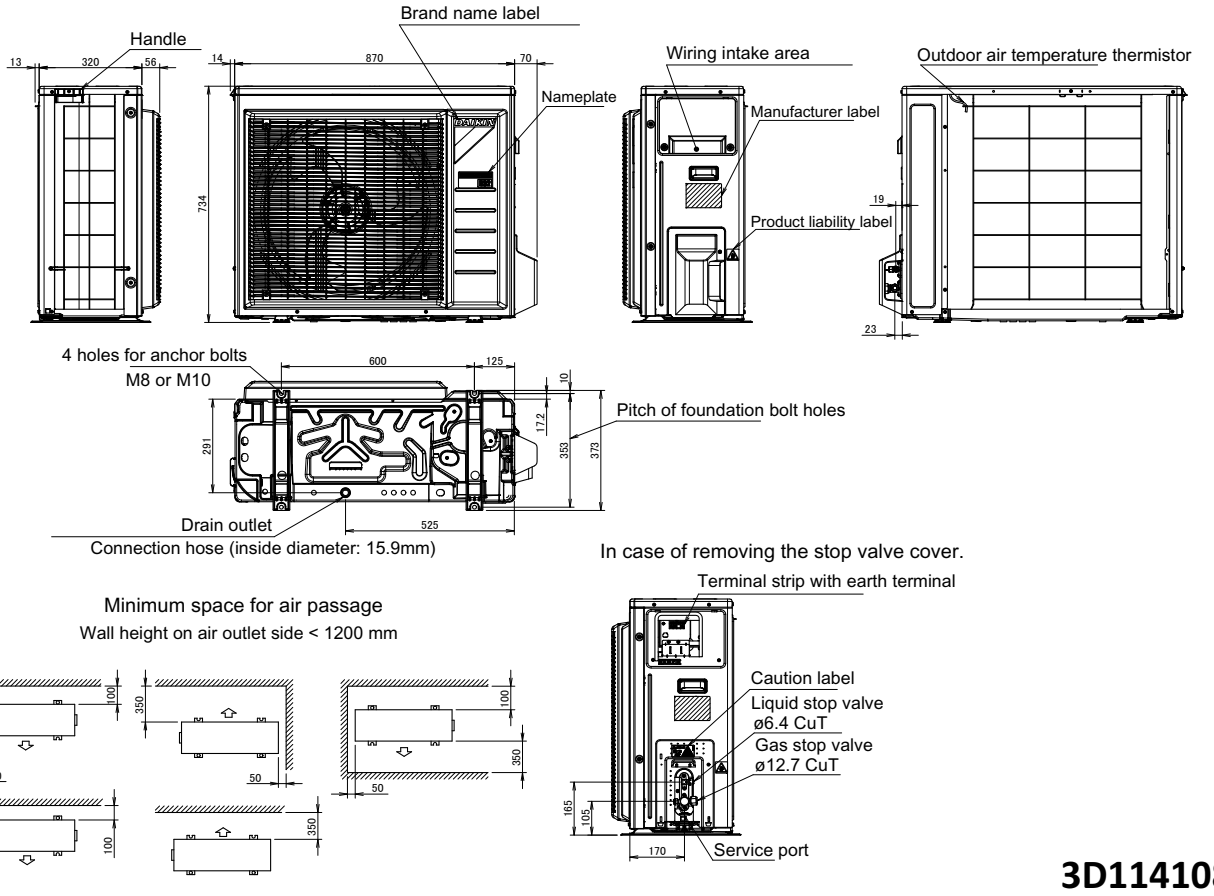
5 Dimensional drawings

5 - 1 Dimensional Drawings

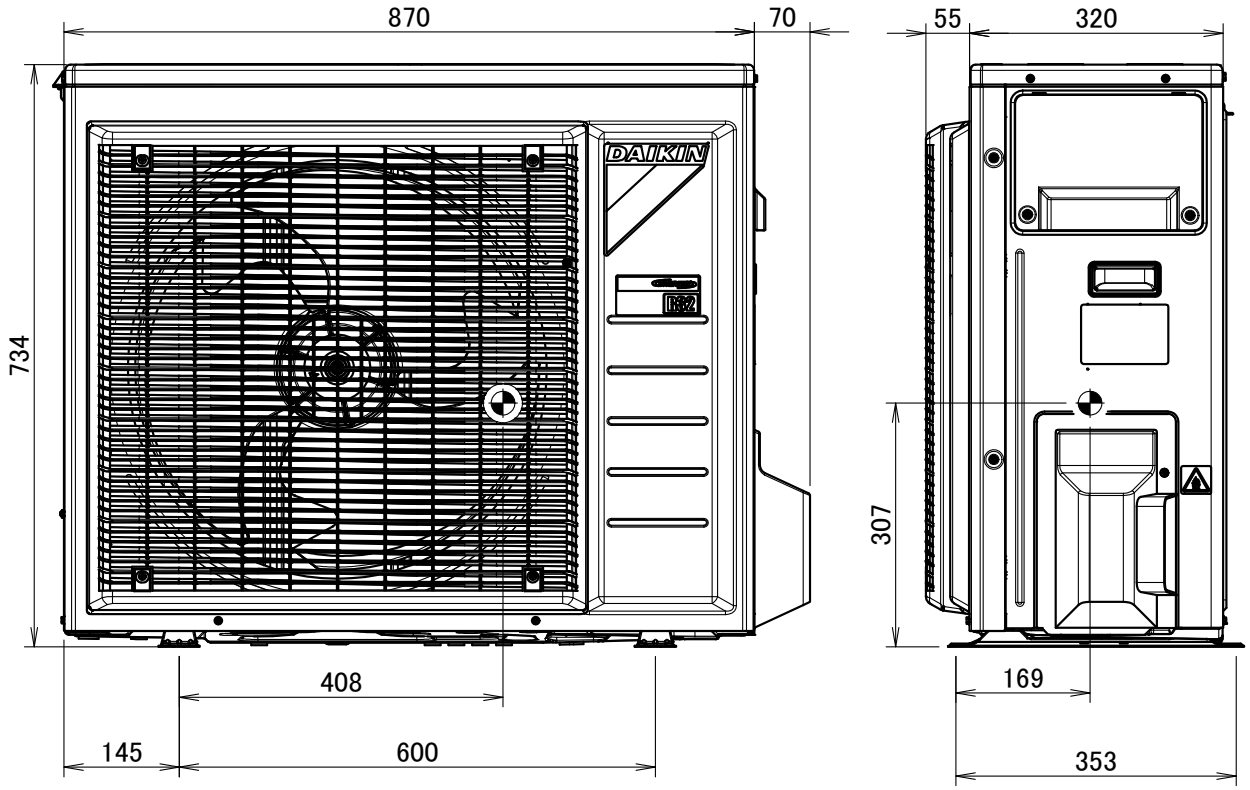
RXJ-N



6 Centre of gravity

6 - 1 Centre of Gravity

RXJ-N



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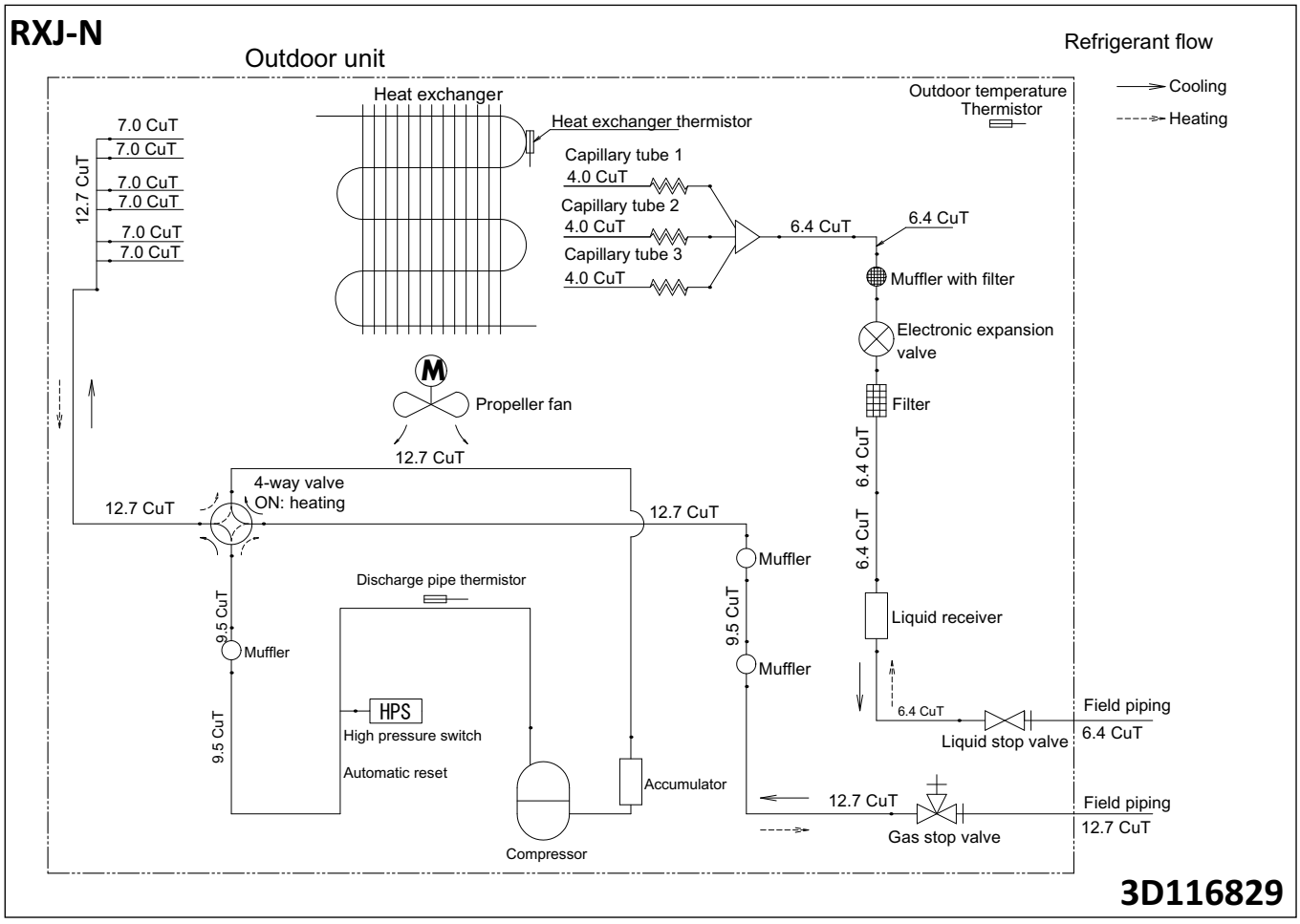
7 Piping diagrams

7 - 1 Piping Diagrams

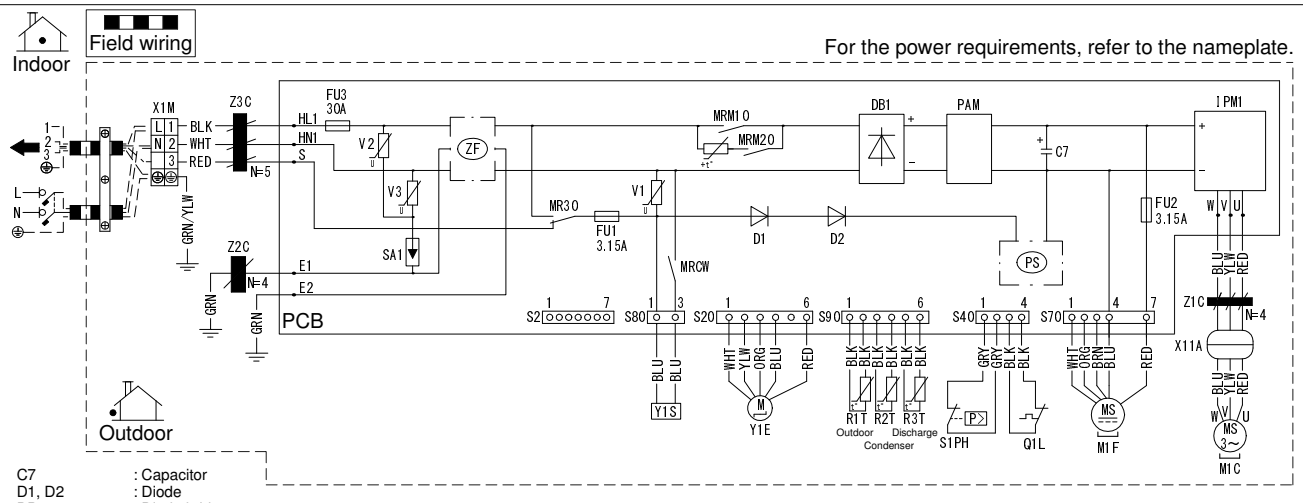


8 Wiring diagrams

8 - 1 Wiring Diagrams - Single Phase

RXJ-N

Wiring diagram



C7	: Capacitor	Q1L	: Overload protector	BLK	: Black
D1, D2	: Diode	R1T, R2T, R3T	: Thermistor	BLU	: Blue
DB1	: Diode bridge	S1PH	: High pressure switch	BRN	: Brown
E1, E2, HL1, HN1,S, U, V, W	: Connection	S2, S20, S40, S70, S80, S90	: Terminal connector	GRN	: Green
FU1, FU2, FU3	: Fuse	SA1	: Surge arrestor	GRY	: Grey
IPM1	: Intelligent power module	V1, V2, V3	: Varistor	ORG	: Orange
L	: Live	X11A	: Connector	RED	: Red
M1C	: Compressor motor	X1M	: Terminal strip	WHT	: White
M1F	: Fan motor	Y1E	: Electronic expansion valve coil	YLW	: Yellow
MR30, MRCW, MRM10, MRM20	: Magnetic relay	Y1S	: Reversing solenoid valve coil		
N	: Neutral	Z1C, Z2C, Z3C	: Ferrite core		
N=4, N=5	: Number of passes	ZF	: Noise filter		
PAM	: Pulse-amplitude modulation	⏚	: Earth		
PCB	: Printed circuit board	⏚	: Protective earth		
PS	: Switching power supply				

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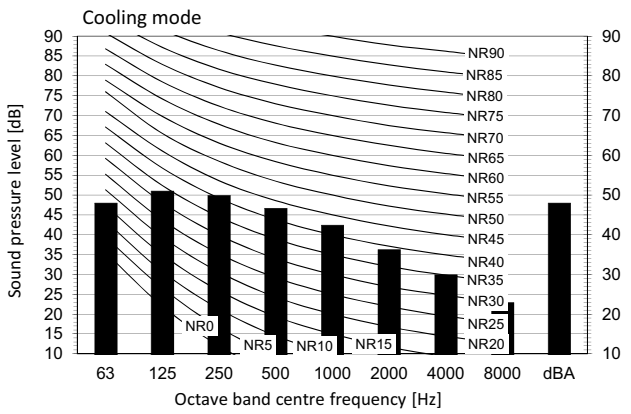
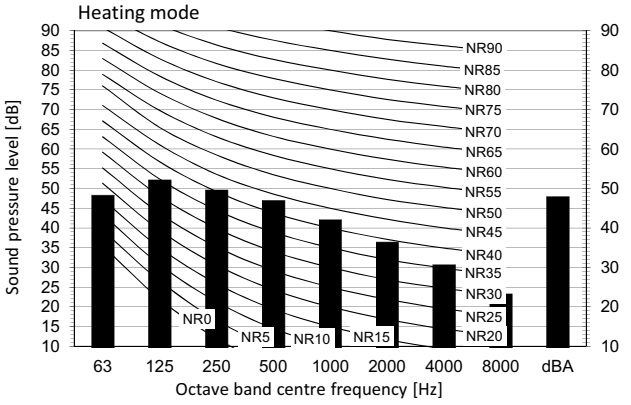
9 Sound data

9 - 1 Sound Pressure Spectrum

RXJ50N





Legend

dBA = A-weighted sound pressure level (A scale according to IEC).

A Scale

B Fan speed: High

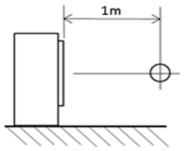
Cooling Total dB

A	B
dBA	48,0

Heating Total dB

A	B
dBA	48,0

Location of microphone



Notes

1 . Operating conditions: power source 220-240 V/220 V 50/60 Hz; JIS standard
2 . Background noise already taken into account.
3 . Operating noise varies depending on operation and ambient conditions.
4 . The operation noise measuring method is in accordance with JISC9612.
5 . Measuring location: anechoic chamber

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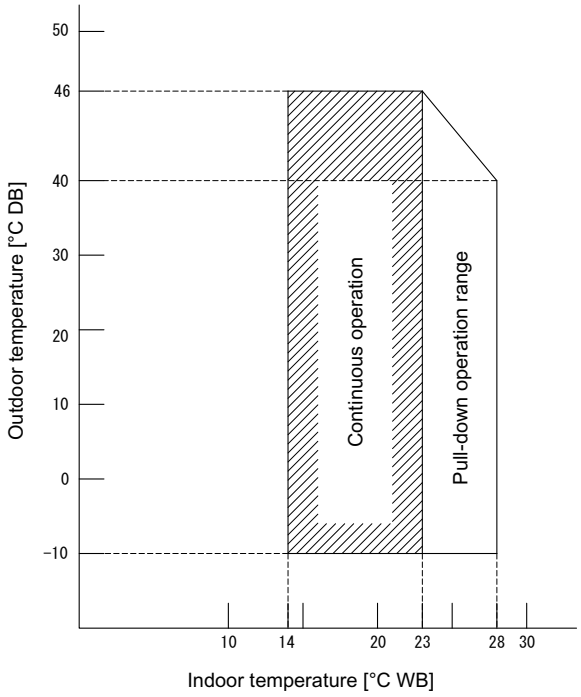
10 Operation range

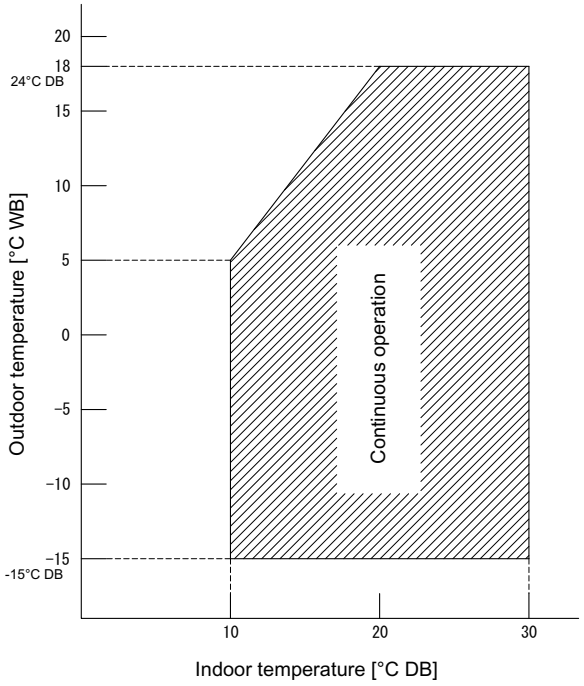
10 - 1 Operation Range

RXJ-N

Cooling



Heating



Notes

1. The graphs is based on the following conditions.
   Corresponding refrigerant piping length: 5 m
   Level difference: 0m
   Air flow rate High

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