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## 2 Specifications

2-1 NOMINAL CAPACITY AND NOMINAL INPUT				ARX20GV1B	ARX25GV1B	ARX35GV1B
For combination indoor units + outdoor units	Indoor Units			ATX20GV1B	ATX25GV1B	ATX35GV1B
	Cooling capacity	Minimum	kW	1.3	1.3	1.3
Btu/h			4,400			
Kcal/h			1,120			
Standard		kW	2.0	2.5	3.2	
		Btu/h	6,800	8,500	10,900	
		Kcal/h	1,720	2,150	2,750	
Maximum		kW	2.6	3.0	3.8	
		Btu/h	8,900	10,200	13,000	
		Kcal/h	2,240	2,580	3,270	
Heating capacity	Minimum	kW	1.3	1.3	1.3	
		Btu/h	4,400			
		Kcal/h	1,120			
	Standard	kW	2.5	2.8	3.4	
		Btu/h	8,500	9,600	11,600	
		Kcal/h	2,150	2,410	2,920	
	Maximum	kW	3.5	4.0	4.8	
		Btu/h	11,600	13,600	16,400	
		Kcal/h	3,010	3,440	4,130	
Power Input	Cooling	Minimum kW	0.31	0.31	0.29	
		Standard kW	0.55	0.74	0.95	
		Maximum kW	0.72	1.05	1.30	
	Heating	Minimum kW	0.25	0.25	0.29	
		Standard kW	0.64	0.76	0.91	
		Maximum kW	0.95	1.11	1.29	
For combination indoor units + outdoor units	EER	Nominal	3.62	3.38	3.37	
	COP	Nominal	3.90	3.68	3.74	
Standard Vivrelec heating	Standard heating	Capacity kW	1.67	1.85	2.22	
		COP	2.49	2.37	2.39	
For combination indoor units + outdoor units	Energy Label	Cooling	A			
		Heating	A			
	Annual energy consumption kWh		275	370	475	

2-2 TECHNICAL SPECIFICATIONS				ARX20GV1B	ARX25GV1B	ARX35GV1B
Casing	Colour			Ivory White		
Dimensions	Unit	Height mm	550	550	550	
		Width mm	658	658	658	
		Depth mm	275	275	275	
	Packing	Height mm	616	616	616	
		Width mm	788	788	788	
		Depth mm	359	359	359	
Weight	Unit	kg	28	28	30	
	Packed Unit	kg	31	31	34	
Heat Exchanger	Dimensions	Length mm	670	670	647	
		Nr of Rows	1	1	2	
		Fin Pitch mm	1.4	1.4	1.4	
		Nr of Stages	24	24	24	
	Tube type	Hi-Xa(7)				
	Fin	Type	Waffle fin			

## 2 Specifications

2-2 TECHNICAL SPECIFICATIONS				ARX20GV1B	ARX25GV1B	ARX35GV1B
Fan	Type			Propeller		
	Quantity			1	1	1
	Air Flow Rate	Cooling (Standard)	m <sup>3</sup> /min	29.2	29.2	27.6
			Heating (Standard)	m <sup>3</sup> /min	26.2	26.2
		Cooling (Standard)	cfm	1,030	1,030	975
			Heating (Standard)	cfm	927	927
	Motor	Quantity		1	1	1
Model		KFD-280-33-8A				
Motor	Speed (nominal)	Cooling (Low)	rpm	720	720	720
		Cooling (High)	rpm	860	860	860
		Heating (Low)	rpm	350	350	350
		Heating (High)	rpm	860	860	860
Fan	Motor	Output	W	33	33	33
Compressor	Quantity			1	1	1
	Motor	Model			1YC23AEXDA	
		Type			Hermetically sealed swing compressor	
Motor	Output	W	750	750	750	
	Operation Range	Cooling	Min	×CDB	10	10
Max			×CDB	46	46	46
Heating		Min	×CWB	-15	-15	-15
		Max	×CWB	20	20	20
Sound Level (nominal)	Cooling	Sound Power	dBA	60	60	62
		Sound Pressure (High)	dBA	46	46	48
	Heating	Sound Pressure (High)	dBA	47	47	48
Refrigerant	Type			R-410A		
	Charge	kg	0.74	0.74	1.0	
Refrigerant Oil	Type			FVC50K		
	Charged Volume	l	0.375	0.375	0.375	

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## 2 Specifications

2-2 TECHNICAL SPECIFICATIONS			ARX20GV1B	ARX25GV1B	ARX35GV1B
Piping connections	Liquid (OD)	Quantity	1	1	1
		Diameter (OD) mm	6.35	6.35	6.35
	Gas	Quantity	1	1	1
		Diameter (OD) mm	9.52	9.52	9.52
	Drain	Quantity	1	1	1
		Diameter (OD) mm	18	18	18
	Piping Length	Maximum m	15	15	15
	Additional Refrigerant Charge	kg/m	0.02 > 10m		
	Installation height difference	Maximum m			12
Max. internunit level difference	m	12	12		
Heat Insulation		Both liquid and gas pipes			
Standard Accessories	Item		Installation manual		
	Quantity		1	1	1
	Item		Drain plug		
	Quantity		1	1	1
Notes		Nominal cooling capacities are based on: indoor temperature: 27×CDB, 19.0×CWB; outdoor temperature: 35×CDB, 24×CWB, refr.pip.length: 5m			
		Nominal heating capacities are based on: indoor temperature: 20×CDB; outdoor temperature: 7×CDB, 6×CWB, refr.pip.length: 5m	Nominal heating capacities are based on: indoor temperature:20×CDB, outdoor temperature:7×CDB, 6×CWB, refr.pip. length 5m (horizontal)	Nominal heating capacities are based on: indoor temperature: 20×CDB; outdoor temperature: 7×CDB, 6×CWB, refr.pip.length: 5m	
		Standard Vivrelec heating conditions: indoor temp. 20×CDB/15×CWB; outdoor temp. -7×CDB/-8×CWB; piping length 5m.			

2-3 ELECTRICAL SPECIFICATIONS			ARX20GV1B	ARX25GV1B	ARX35GV1B
Power Supply	Name		V1		
	Phase		1~		
	Frequency	Hz	50	50	50
	Voltage	V	220-230-240		
Current	Nominal running current (RLA)	Cooling (A)	2.52	3.52	4.82
		Heating (A)	2.82	3.32	4.42
	Starting current (cooling/heating)	A	2.7	3.7	5.0
Wiring connections	For Power Supply	Quantity	3	3	3
	For connection with indoor	Quantity	4	4	4
		Remark	(including earth wiring)		

### 3 Electrical data

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Representative unit combination		Power supply				Comp		OFM		IFM	
Indoor unit	Outdoor unit	Hz-Volts	Voltage range	MCA	MFA	RHz	RLA	W	FLA	W	FLA
ATX20GV1B	ARX20GV1B	50-220	Max 50Hz 264V Min. 50Hz 198V	14.5	16	36	2.2	33	0.17	16	0.12
		50-230									
		50-240									
ATX25GV1B	ARX25GV1B	50-220	Max 50Hz 264V Min. 50Hz 198V	14.5	16	48	3.2	33	0.17	16	0.12
		50-230									
		50-240									
ATX35GV1B	ARX35GV1B	50-220	Max 50Hz 264V Min. 50Hz 198V	14.5	16	66	4.5	33	0.17	16	0.12
		50-320									
		50-240									

**SYMBOLS**

MCA : Air flow rate (A)  
MFA : Bypass factor (A)  
RLA : Entering wet bulb temp. (A)  
OFM : Entering dry bulb temp.  
IFM : Total capacity  
FLA : Sensible heat capacity (A)  
W : Power input (W)  
RHz : Rated operating frequency (Hz)

**NOTES**

- 1 RLA is based on the following conditions.  
Indoor temp. 27°C DB/19°C WB  
Outdoor temp. 35°C DB.
- 2 Maximum allowable voltage variation between phases is 2%.
- 3 Select wire size based on the larger value of MCA.
- 4 Instead of fuse, use circuit breaker.

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# 4 Capacity tables

## 4 - 1 Cooling/Heating capacity tables

ATX20GV1B + ARX20GV1B

**Cooling**

50Hz 220-240V

AFR	9.1
BF	0.24

Indoor		Outdoor temperature (°C DB)																	
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	2.05	1.71	0.42	1.96	1.67	0.46	1.86	1.62	0.50	1.83	1.61	0.52	1.77	1.58	0.54	1.68	1.54	0.58
16.0	22	2.14	1.68	0.42	2.05	1.64	0.47	1.95	1.60	0.51	1.92	1.59	0.52	1.86	1.56	0.55	1.77	1.52	0.59
18.0	25	2.23	1.79	0.43	2.14	1.75	0.47	2.05	1.71	0.51	2.01	1.70	0.52	1.95	1.68	0.55	1.86	1.64	0.59
19.0	27	2.28	1.91	0.43	2.19	1.88	0.47	2.09	1.84	0.51	2.06	1.83	0.53	2.00	1.80	0.55	1.91	1.77	0.59
22.0	30	2.42	1.85	0.43	2.32	1.82	0.47	2.23	1.79	0.51	2.19	1.78	0.53	2.14	1.76	0.55	2.05	1.73	0.59
24.0	32	2.51	1.81	0.43	2.42	1.78	0.47	2.32	1.76	0.52	2.29	1.74	0.53	2.23	1.73	0.56	2.14	1.70	0.60

**Heating**

50Hz 220-240V

AFR	9.4
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Indoor		Outdoor temperature (°C DB)									
EDB °C	°C	-10		-5		0		6		10	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
15.0		1.68	0.54	1.97	0.57	2.25	0.59	2.59	0.63	2.81	0.65
20.0		1.60	0.56	1.88	0.58	2.16	0.61	2.50	0.64	2.73	0.66
22.0		1.56	0.56	1.84	0.59	2.13	0.61	2.47	0.65	2.69	0.67
24.0		1.53	0.57	1.81	0.59	2.09	0.62	2.43	0.65	2.66	0.67
25.0		1.51	0.57	1.79	0.60	2.07	0.62	2.41	0.65	2.64	0.68
27.0		1.48	0.58	1.76	0.60	2.04	0.63	2.38	0.66	2.61	0.68

**SYMBOLS**

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

**NOTES**

- 1 Capacities are based on the following conditions,
  - (1) Corresponding refrigerant piping length: 5m
  - (2) Level difference : 0m
- 2   shows nominal (rated) capacities and power input.

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# 4 Capacity tables

## 4 - 1 Cooling/Heating capacity tables

ATX25GV1B + ARX25GV1B

### Cooling

50Hz 220-240V

AFR	9.2
BF	0.29

Indoor		Outdoor temperature (°C DB)																	
°C	°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	2.15	1.72	0.52	2.15	1.72	0.59	2.15	1.72	0.66	2.15	1.72	0.69	2.15	1.72	0.73	2.10	1.69	0.79
16.0	22	2.68	1.89	0.57	2.56	1.83	0.63	2.44	1.78	0.68	2.40	1.76	0.70	2.33	1.72	0.74	2.21	1.67	0.79
18.0	25	2.79	1.98	0.57	2.68	1.93	0.63	2.56	1.88	0.68	2.51	1.86	0.71	2.44	1.83	0.74	2.33	1.78	0.79
19.0	27	2.85	2.09	0.58	2.73	2.04	0.63	2.62	1.99	0.69	2.57	1.97	0.71	2.50	1.94	0.74	2.38	1.90	0.79
22.0	30	3.02	2.02	0.58	2.91	1.97	0.64	2.79	1.93	0.69	2.74	1.91	0.71	2.67	1.89	0.74	2.56	1.85	0.80
24.0	32	3.14	1.96	0.58	3.02	1.92	0.64	2.90	1.89	0.69	2.86	1.87	0.72	2.79	1.85	0.75	2.67	1.81	0.80

### Heating

50Hz 220-240V

AFR	9.7
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Indoor		Outdoor temperature (°C DB)									
°C	°C	-10		-5		0		6		10	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
15.0	15.0	1.88	0.64	2.20	0.67	2.52	0.71	2.90	0.74	3.15	0.77
20.0	20.0	1.79	0.66	2.10	0.69	2.42	0.72	2.80	0.76	3.05	0.79
22.0	22.0	1.75	0.67	2.07	0.70	2.38	0.73	2.76	0.77	3.01	0.79
24.0	24.0	1.71	0.67	2.03	0.70	2.34	0.74	2.72	0.77	2.98	0.80
25.0	25.0	1.69	0.68	2.01	0.71	2.32	0.74	2.70	0.78	2.96	0.80
27.0	27.0	1.65	0.68	1.97	0.72	2.29	0.75	2.66	0.78	2.92	0.81

#### SYMBOLS

AFR	: Air flow rate	(m <sup>3</sup> /min.)
BF	: Bypass factor	
EWB	: Entering wet bulb temp.	(°C)
EDB	: Entering dry bulb temp.	(°C)
TC	: Total capacity	(kW)
SHC	: Sensible heat capacity	(kW)
PI	: Power input	(kW)

#### NOTES

- Capacities are based on the following conditions,
  - Corresponding refrigerant piping length: 5m
  - Level difference : 0m
- shows nominal (rated) capacities and power input.

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# 4 Capacity tables

## 4 - 1 Cooling/Heating capacity tables

ATX35GV1B + ARX35GV1B

### Cooling

50Hz 220-240V

AFR	9.3
BF	0.25

Indoor		Outdoor temperature (°C DB)																	
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	2.30	1.83	0.69	2.30	1.83	0.79	2.30	1.83	0.90	2.30	1.83	0.90	2.30	1.83	0.94	2.30	1.83	1.01
16.0	22	3.07	2.11	0.72	3.07	2.11	0.80	3.07	2.11	0.87	3.07	2.11	0.90	2.98	2.07	0.94	2.83	2.00	1.01
18.0	25	3.57	2.38	0.74	3.42	2.31	0.81	3.28	2.24	0.88	3.22	2.22	0.91	3.13	2.18	0.95	2.98	2.11	1.02
19.0	27	3.65	2.49	0.74	3.50	2.43	0.81	3.35	2.36	0.88	3.29	2.34	0.91	3.20	2.30	0.95	3.05	2.23	1.02
22.0	30	3.87	2.40	0.75	3.72	2.34	0.82	3.57	2.28	0.89	3.51	2.26	0.91	3.42	2.22	0.96	3.27	2.17	1.03
24.0	32	4.02	2.33	0.75	3.87	2.28	0.82	3.72	2.22	0.89	3.66	2.20	0.92	3.57	2.17	0.96	3.42	2.12	1.03

### Heating

50Hz 220-240V

AFR	10.1
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Indoor		Outdoor temperature (°C DB)									
EDB °C	°C	-10		-5		0		6		10	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
15.0		2.29	0.77	2.67	0.81	3.06	0.84	3.52	0.89	3.82	0.92
20.0		2.17	0.79	2.56	0.83	2.94	0.87	3.40	0.91	3.71	0.94
22.0		2.12	0.80	2.51	0.84	2.89	0.87	3.35	0.92	3.66	0.95
24.0		2.08	0.81	2.46	0.84	2.85	0.88	3.28	0.93	3.61	0.96
25.0		2.05	0.81	2.44	0.85	2.82	0.89	3.28	0.93	3.59	0.96
27.0		2.01	0.82	2.39	0.86	2.77	0.89	3.24	0.94	3.54	0.97

#### SYMBOLS

AFR	: Air flow rate	(m <sup>3</sup> /min.)
BF	: Bypass factor	
EWB	: Entering wet bulb temp.	(°C)
EDB	: Entering dry bulb temp.	(°C)
TC	: Total capacity	(kW)
SHC	: Sensible heat capacity	(kW)
PI	: Power input	(kW)

#### NOTES

- Capacities are based on the following conditions,  
 (1) Corresponding refrigerant piping length: 5m  
 (2) Level difference : 0m
- shows nominal (rated) capacities and power input.

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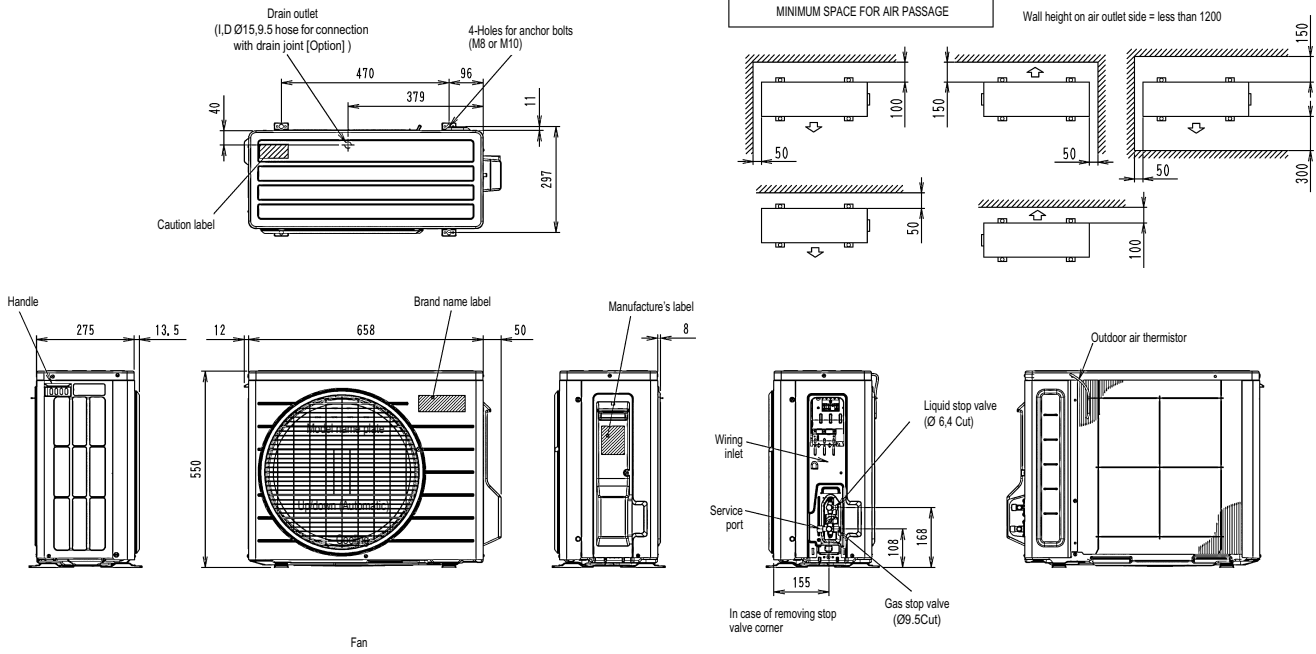


# 5 Dimensional drawing & centre of gravity

## 5 - 1 Dimensional drawing

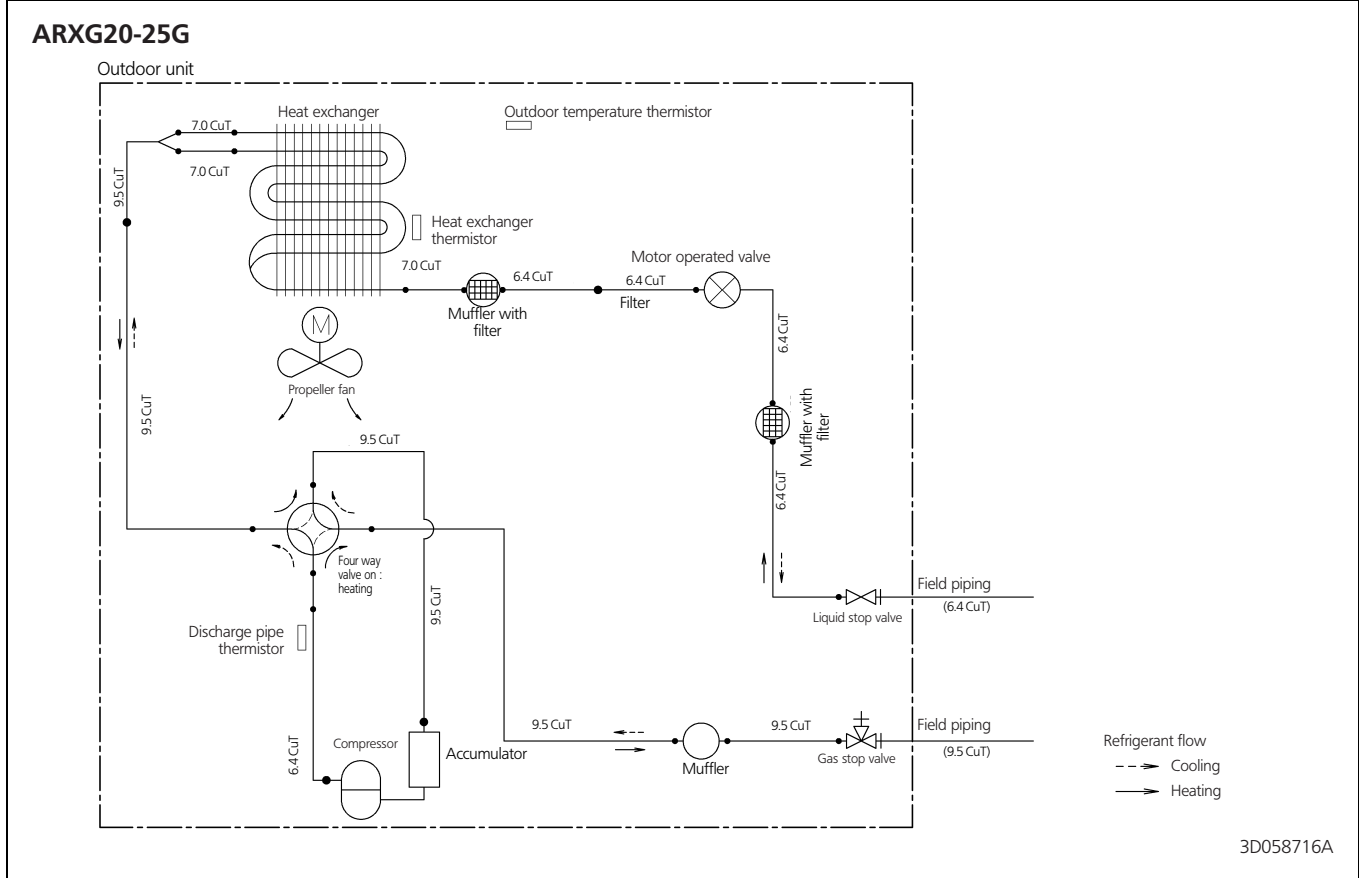
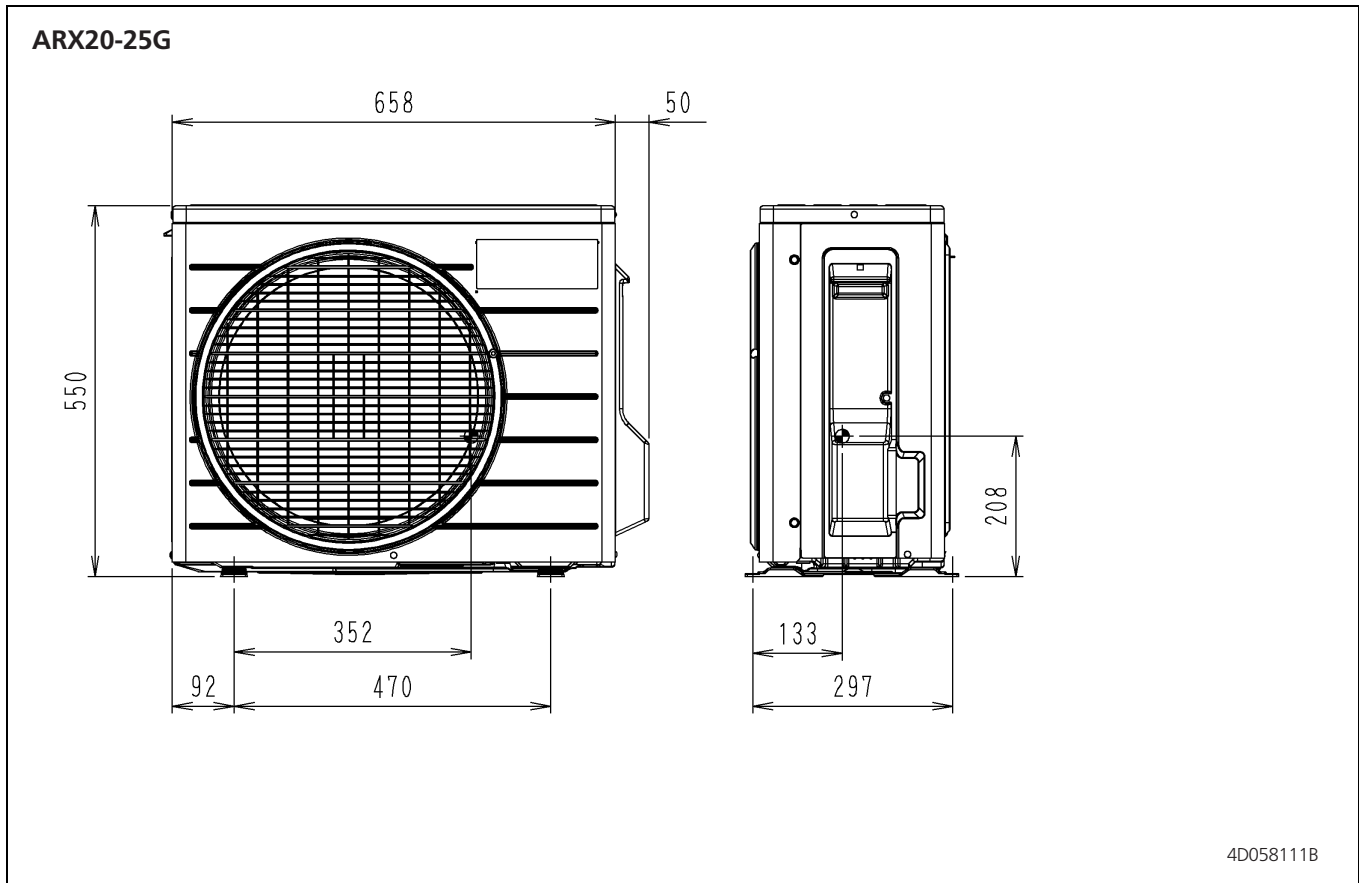
ARX20-35GV

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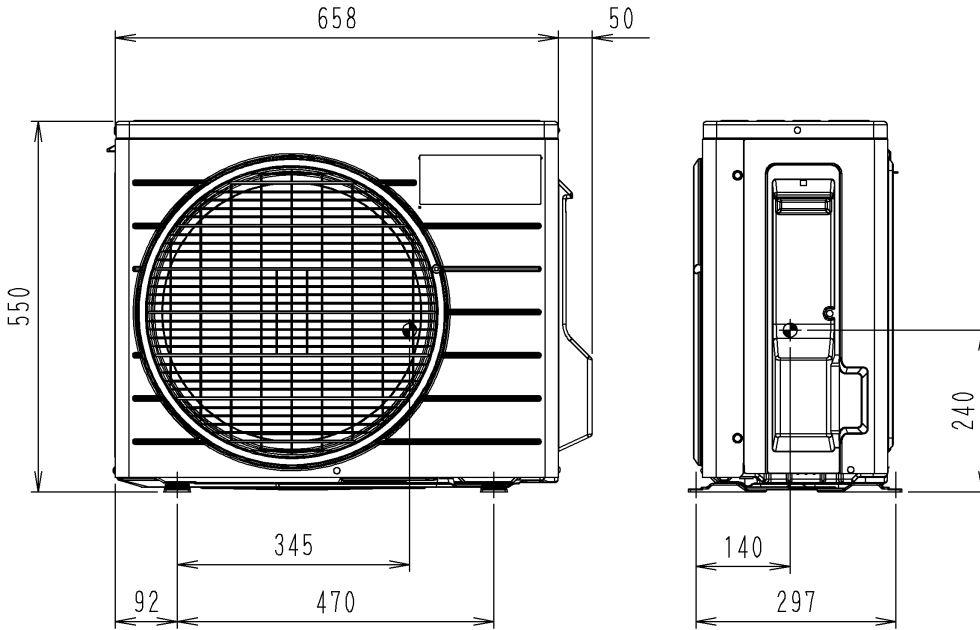
# 6 Piping diagram



# 6 Piping diagram

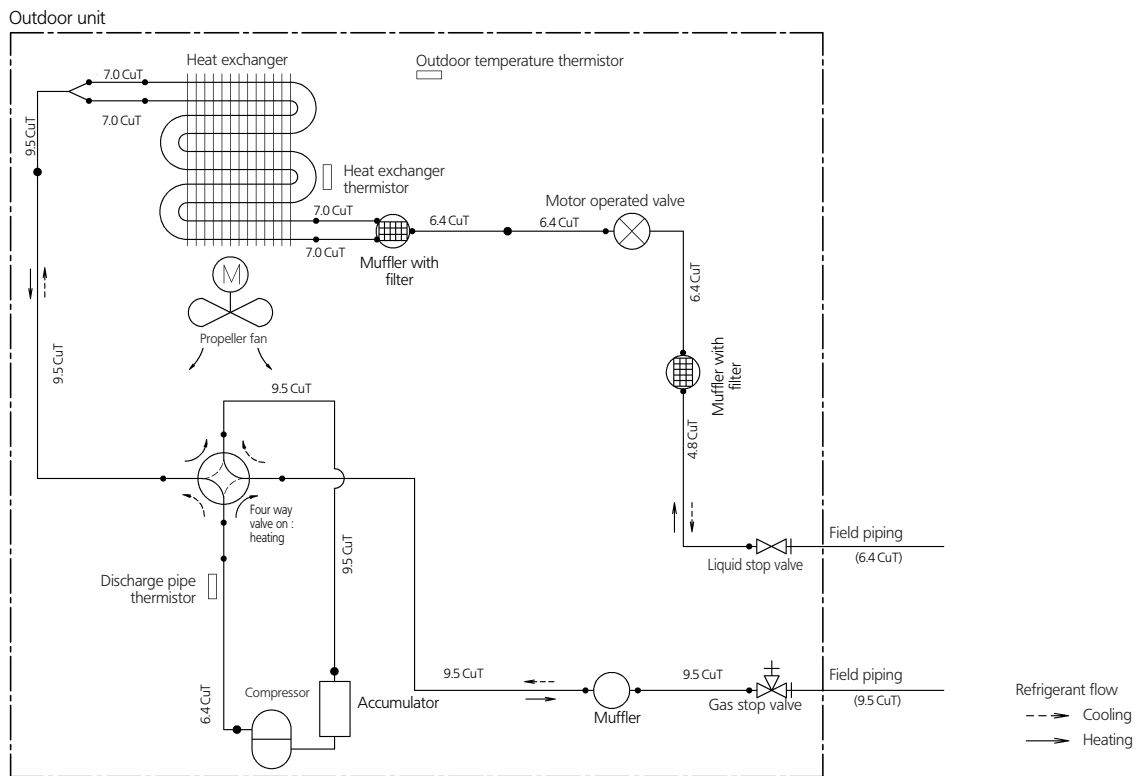
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ARX35G



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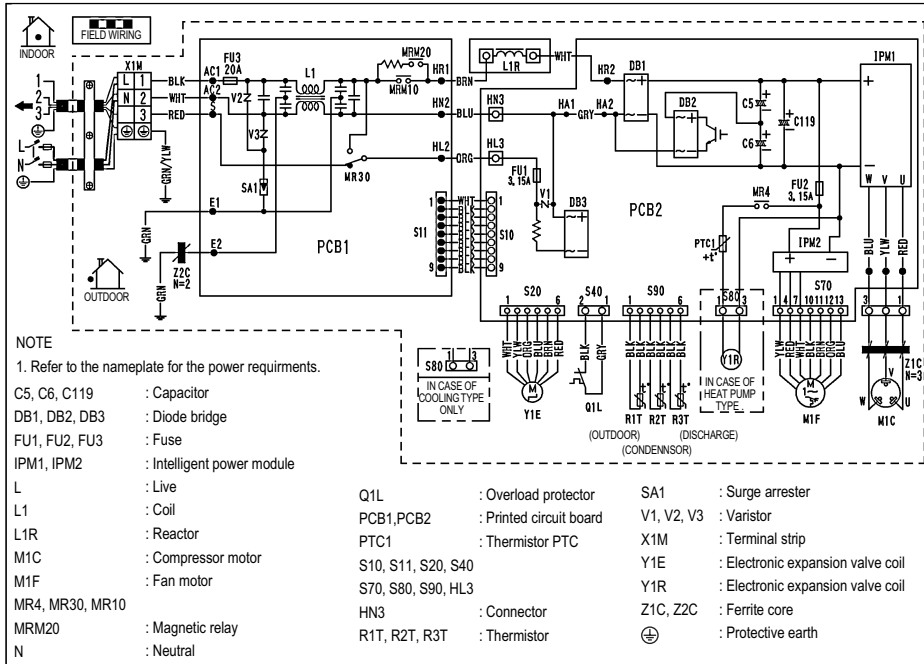


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# 7 Wiring diagram

## 7 - 1 Wiring diagram

ARX20-35GV



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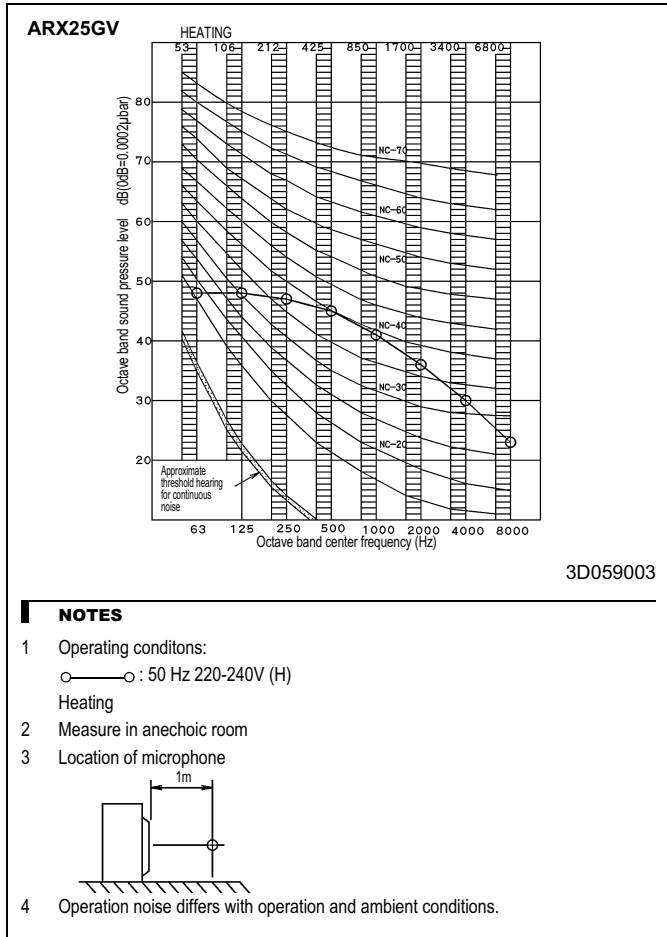
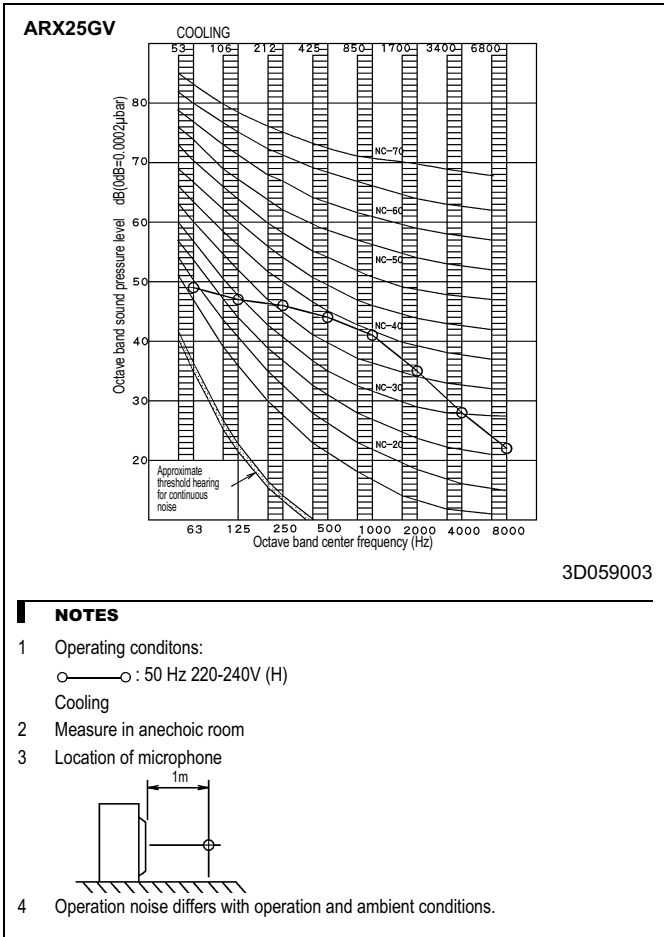
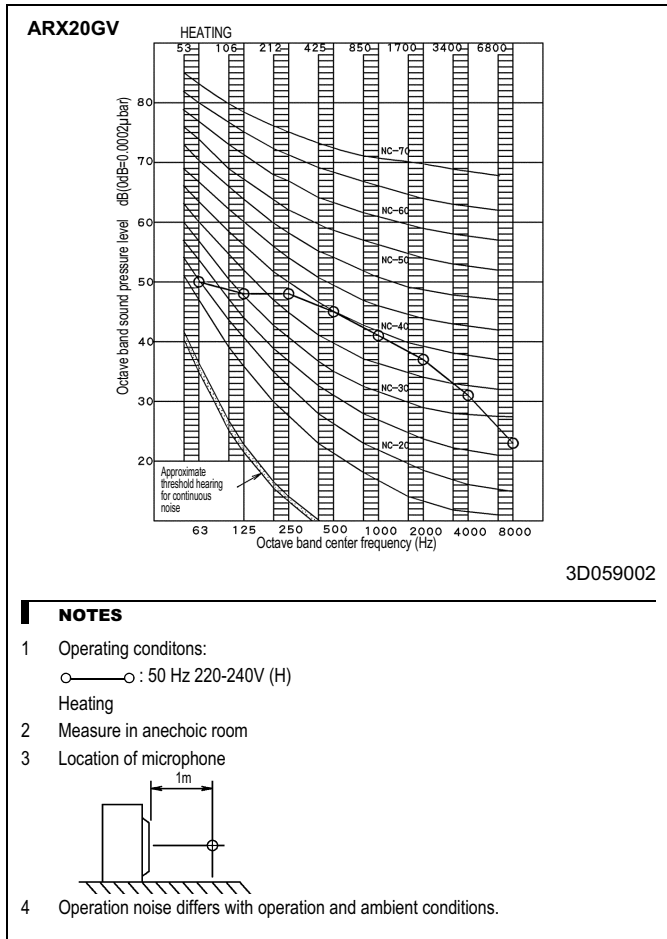
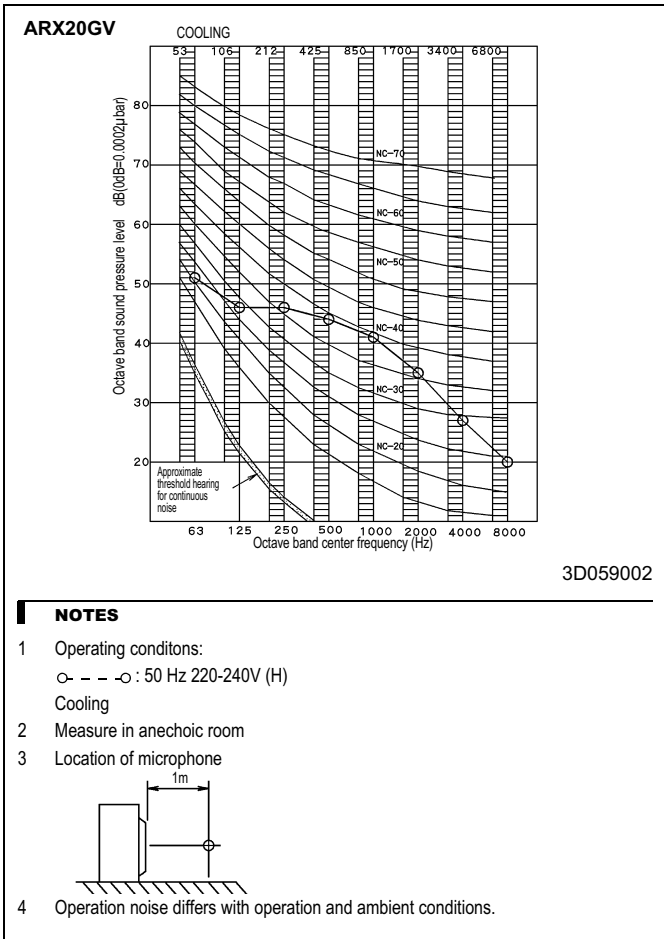
### NOTES

- 1 Size: Length 132 x Width 185
- 2 Refer to purchasing specification AS(Y)303002, unless otherwise specified.
- 3 This drawing was drawn on CAD system.

# 8 Sound data

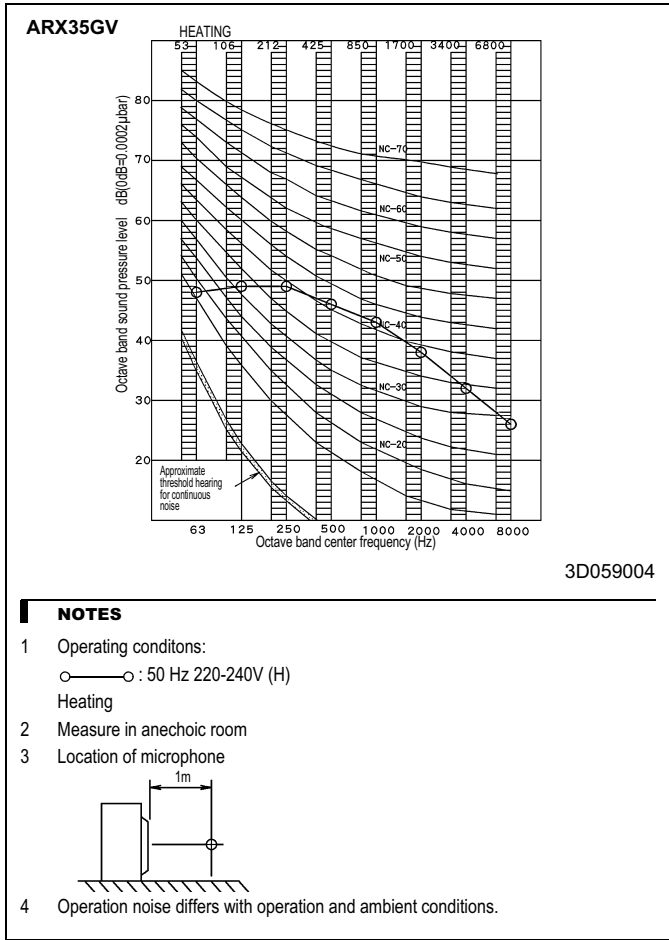
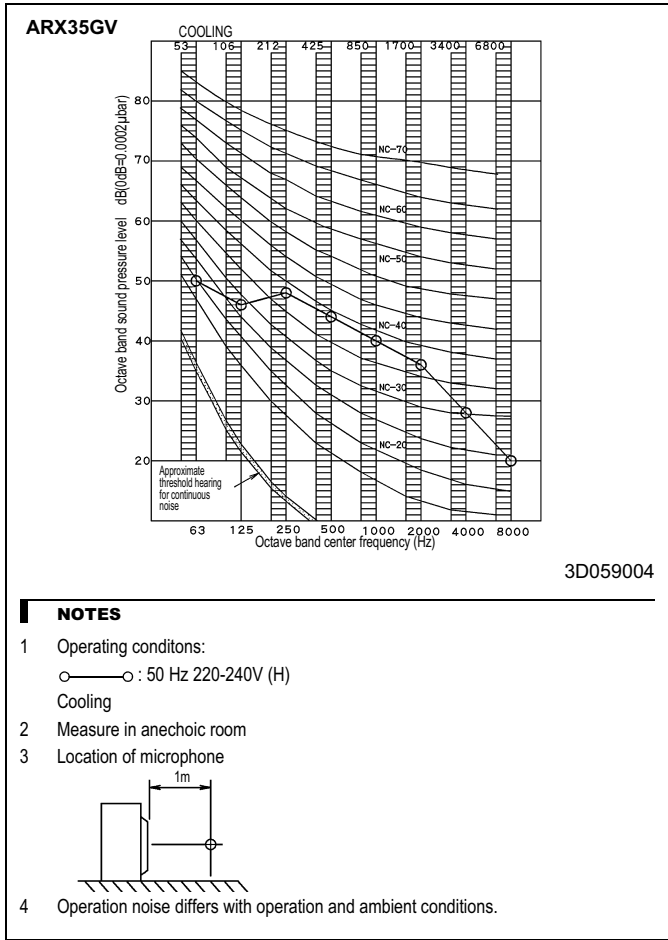
## 8 - 1 Sound pressure spectrum

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# 8 Sound data

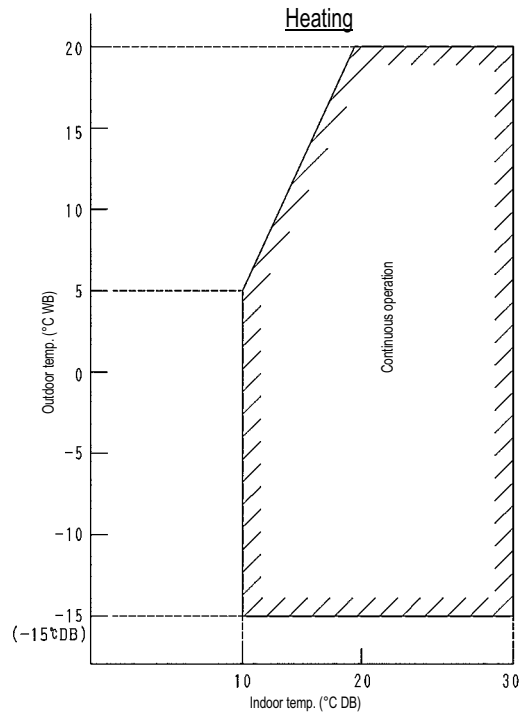
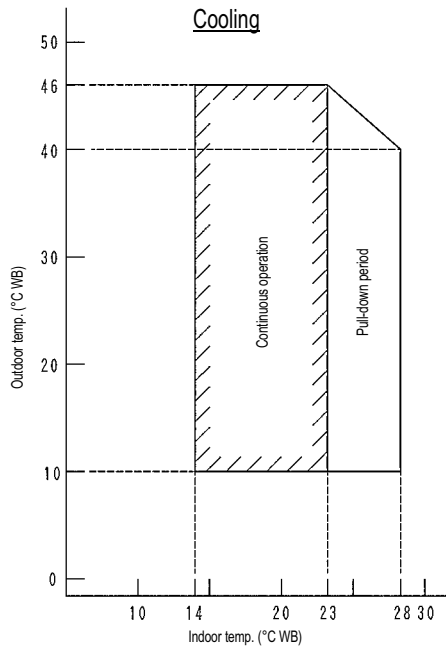
## 8 - 1 Sound pressure spectrum



# 9 Operation range

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ARX20-35GV



**NOTES**

- 1 The graphs are based on the following conditions.
  - Equivalent piping length 5m
  - Level difference 0m
  - Air flow rate High

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