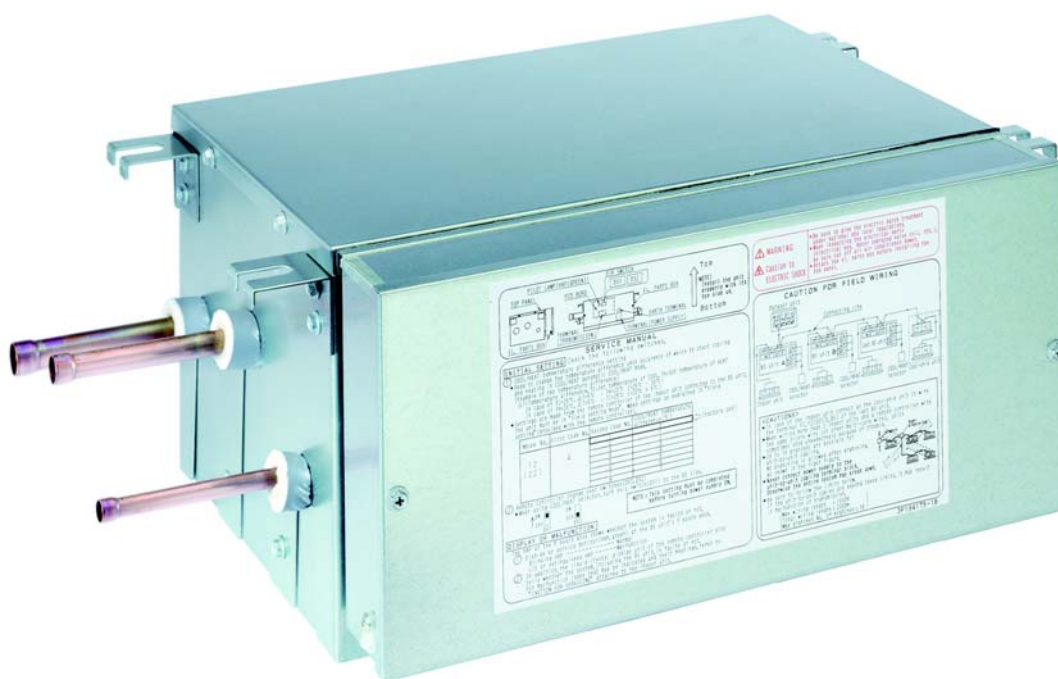




Air Conditioning Technical Data

Individual branch selector for VRV IV heat recovery



EEEDEN15-202

BS1Q-A

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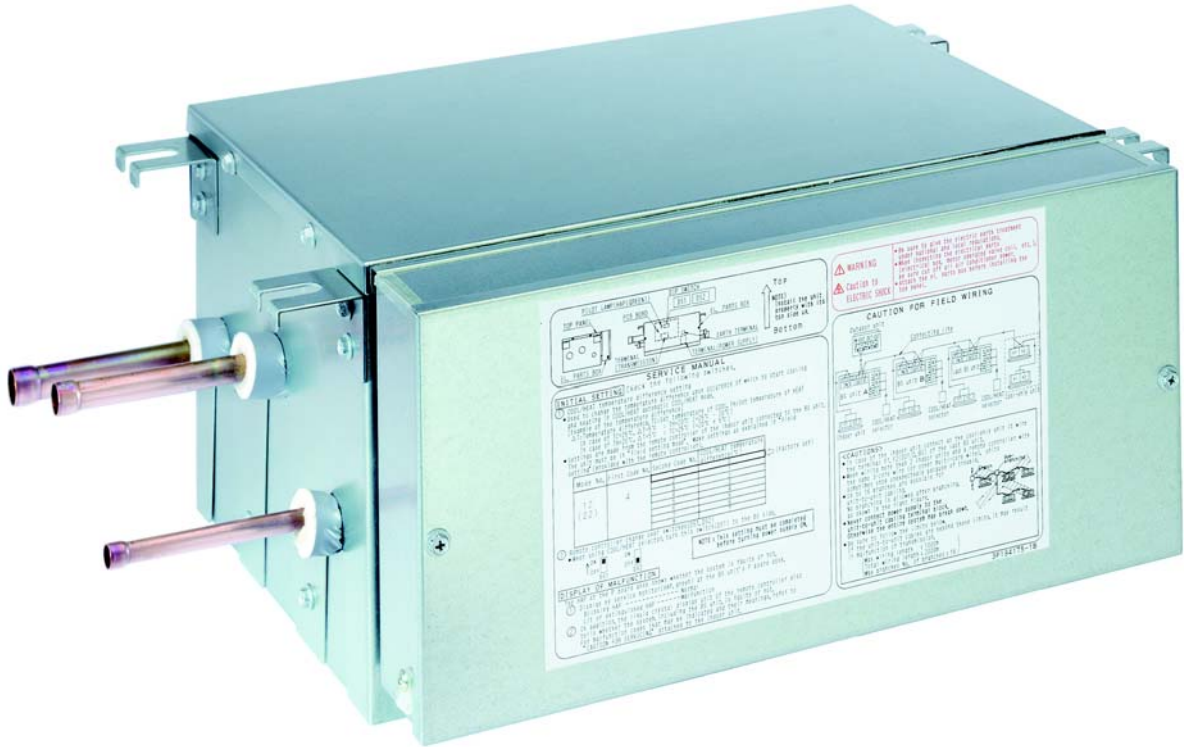
BS1Q-A

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1 Features

- Unique range of single and multi BS boxes for flexible and fast design
- Compact & light to install
- Ideal for remote rooms as no drain piping is needed
- Allows integration of server rooms into the heat recovery solution thanks to technical cooling function
- Connect up to 250 class unit (28kW)
- Faster installation thanks to open connection
- Allows multi tenant applications
- Connectable to REYQ-T VRV IV heat recovery units

1



2

2 Specifications

2-1 Technical Specifications				BS1Q10A	BS1Q16A	BS1Q25A
Power input	Cooling	Nom.	kW	0.005		
	Heating	Nom.	kW	0.005		
Maximum number of connectable indoor units				6	8	
Maximum capacity index of connectable indoor units				15 < x ≤ 100	100 < x ≤ 160	160 < x ≤ 250
Dimensions	Unit	Height x Width x Depth	mm	207 x 388 x 326		
Weight	Unit		kg	12	15	
Casing	Material			Galvanised steel plate		
Piping connections	Outdoor unit	Liquid	Type	Brazing connection		
			OD	mm	9.5	
		Gas	Type	Brazing connection		
			OD	mm	15.9	22.2
	Discharge gas	Type	Brazing connection			
		OD	mm	12.7	19.1	
	Indoor unit	Liquid	Type	Brazing connection		
			OD	mm	9.5	
Gas		Type	Brazing connection			
		OD	mm	15.9	22.2	
Sound absorbing thermal insulation				Foamed polyurethane Flame-resistant needle felt		

Standard Accessories : Installation manual;

Standard Accessories : Insulation;

Standard Accessories : Accessory pipe;

Standard Accessories : Clamps;

2-2 Electrical Specifications				BS1Q10A	BS1Q16A	BS1Q25A
Power supply	Phase			1~		
	Frequency		Hz	50		
	Voltage		V	220-240		
	Voltage range	Min.	%	-10		
		Max.	%	10		
Total circuit	Minimum circuit amps (MCA)		A	0.1		
	Maximum fuse amps (MFA)		A	15		

Notes

In case of connecting with a 15-50 type indoor unit, use the accessory pipe to match the size of the field pipe. Be sure to braze the connection between the accessory pipe and the field pipe.

Voltage range: units are suitable for use on electrical systems where voltage supplied to unit terminal is not below or above listed range limits.

Maximum allowable voltage range variation between phases is 2%.

MCA/MFA: MCA = 1.25 x FLA

MFA ≤ 4 x FLA

Next lower standard fuse rating minimum 15A

Select wire size based on the value of MCA

Instead of a fuse, use a circuit breaker

In case of connecting to a 150-160 type indoor unit, use the accessory pipe to match the size of the field pipe. Be sure to braze the connection between the accessory pipe and the field pipe.

In case of connecting to a 160-200 type indoor unit, use the accessory pipe to match the size of the field pipe. Be sure to braze the connection between the accessory pipe and the field pipe.

3 Electrical data

3 - 1 Electrical Data

3

BS1Q-A

Model	Category of unit			Power supply		Power input [W]	
	Hz	Voltage	Voltage range	MCA	MFA	Cooling	Heating
BS1Q10A7V1B	50	220-240	Maximum: 264V	0.1	15	5	5
BS1Q16A7V1B			Minimum: 198V				
BS1Q25A7V1B							

Symbols

MCA: Minimum Circuit Ampere (A)

MFA: Maximum Fuse Ampere (A) See note -5-

Notes

1. Voltage range
The units are suitable for use with electrical systems in which the voltage supplied to the unit terminals is not below or above the listed range limits.
2. The maximum allowable voltage that is unbalanced between phases is 2%.
3. MCA / FLA
MCA = 1.25 x FLA
MFA ≤ 4 x FLA
The next lower standard fuse rating is minimum 15 ampere.
4. Select the wire size according to the MCA.
5. Use a circuit breaker instead of a fuse.

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4 Safety device settings

4 - 1 Safety Device Settings

BS1Q-A

Model	Safety devices
	PCB fuse
BS1Q10A7V1B	250V 3.15A
BS1Q16A7V1B	250V 3.15A
BS1Q25A7V1B	250V 3.15A

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5 Options

5 - 1 Options

5

BS1Q-A

Option list

	Item	BS1Q10A	BS1Q16A	BS1Q25A
1	PCB for multi-tenant indoor units	DTA114A61		
2	Sound reduction kit	EKBSVQLNP See note -2-		

Notes

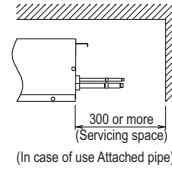
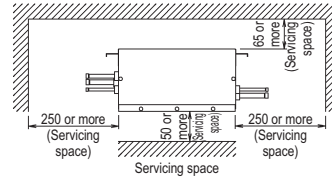
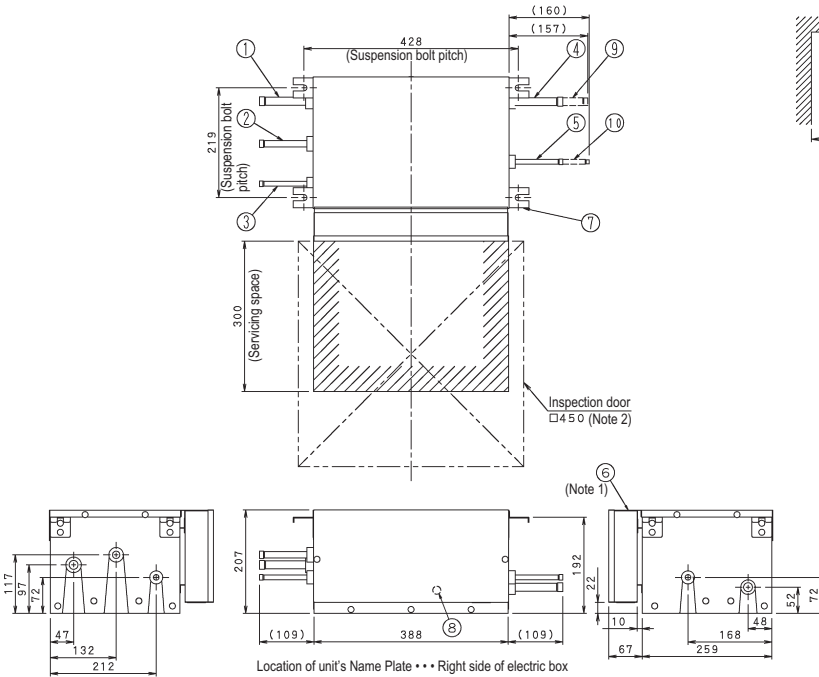
1. All options are kits
2. Only available for standard ·BS· units.
Reduces the operating sound of the ·BS· unit (requires 1 kit per unit).

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6 Dimensional drawings

6 - 1 Dimensional Drawings

BS1Q10A



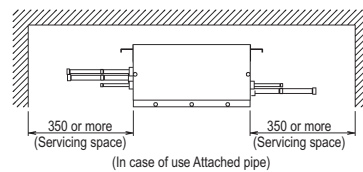
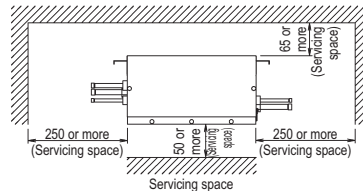
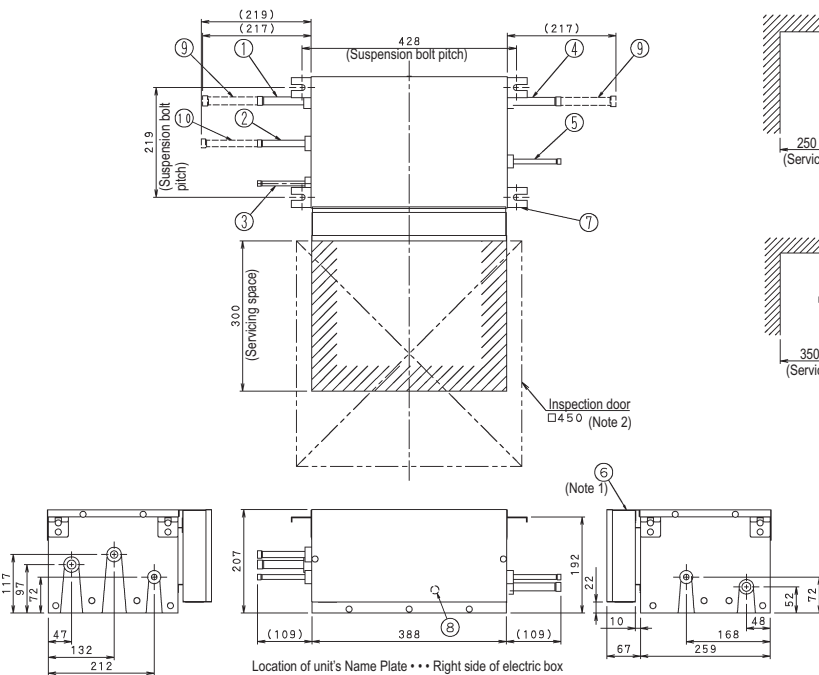
Number	Part name	Description
1	Suction gas pipe connection port	ø 15.9mm brazing connection
2	HP/LP gas pipe connection port	ø 12.7mm brazing connection
3	Liquid pipe connection port	ø 9.5mm brazing connection
4	Gas pipe connection port	ø 15.9mm brazing connection
5	Liquid pipe connection port	ø 9.5mm brazing connection
6	Electric box (Note 1)	
7	Suspension brackets	M8-M10
8	Grounding terminal	M4
9	Attached pipe(1) (Note 3)	ø 12.7mm brazing connection
10	Attached pipe(2) (Note 3)	ø 6.4mm brazing connection

NOTES

1. Electric box can also be fixed on the other side of the unit.
2. Be sure to install an inspection door at electric box side.
3. Attached pipe is only used in case of connecting with a 20-50 class indoor unit.
4. Small sound of refrigerant will be made, which may be disturbing.
Do not install it at the place such as bedroom under roof.

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BS1Q16A



Number	Part name	Description
1	Suction gas pipe connection port	ø 15.9mm brazing connection
2	HP/LP gas pipe connection port	ø 12.7mm brazing connection
3	Liquid pipe connection port	ø 9.5mm brazing connection
4	Gas pipe connection port	ø 15.9mm brazing connection
5	Liquid pipe connection port	ø 9.5mm brazing connection
6	Electric box (Note 1)	
7	Suspension brackets	M8-M10
8	Grounding terminal	M4
9	Attached pipe(1) (Note 3)	ø 19.1mm brazing connection
10	Attached pipe(2) (Note 3)	ø 15.9mm brazing connection

NOTES

1. Electric box can also be fixed on the other side of the unit.
2. Be sure to install an inspection door at electric box side.
3. Attached pipe is only used in case of connecting with indoor unit capacity index 150 or more and 160 or less.
4. Small sound of refrigerant will be made, which may be disturbing.
Do not install it at the place such as bedroom under roof.

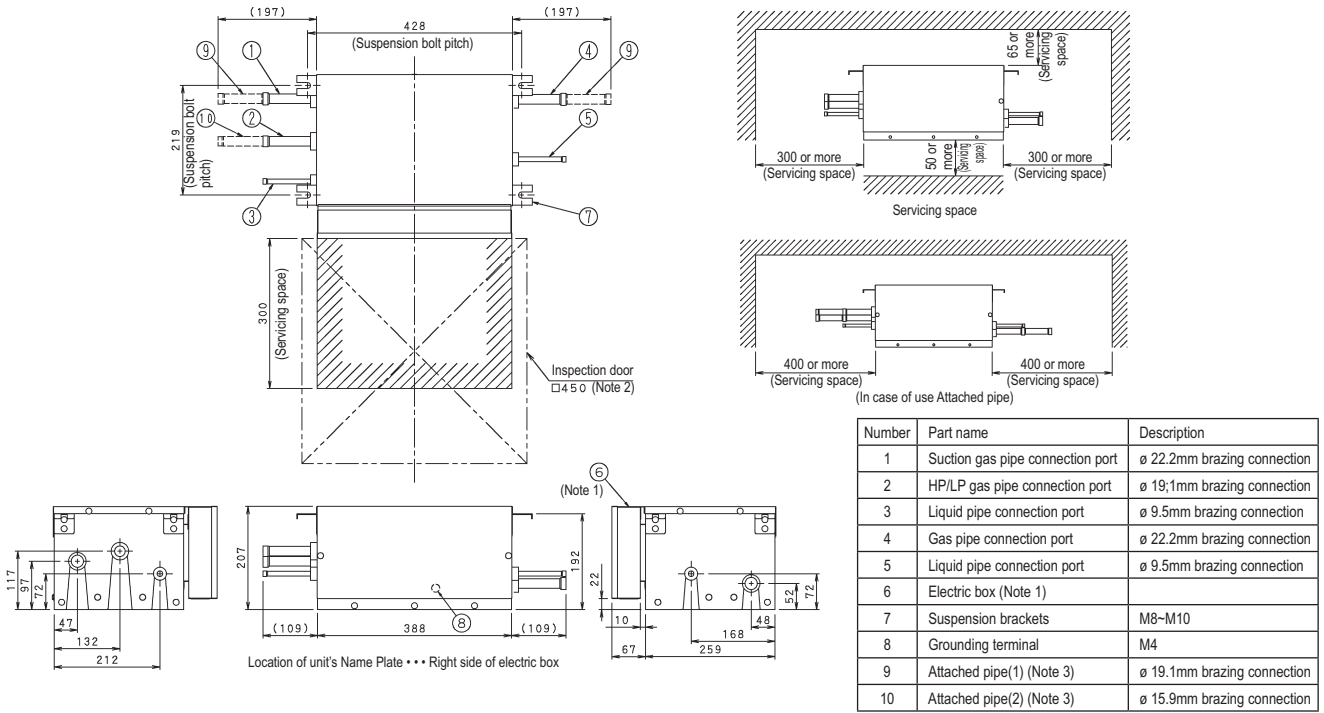
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6 Dimensional drawings

6 - 1 Dimensional Drawings

6

BS1Q25A



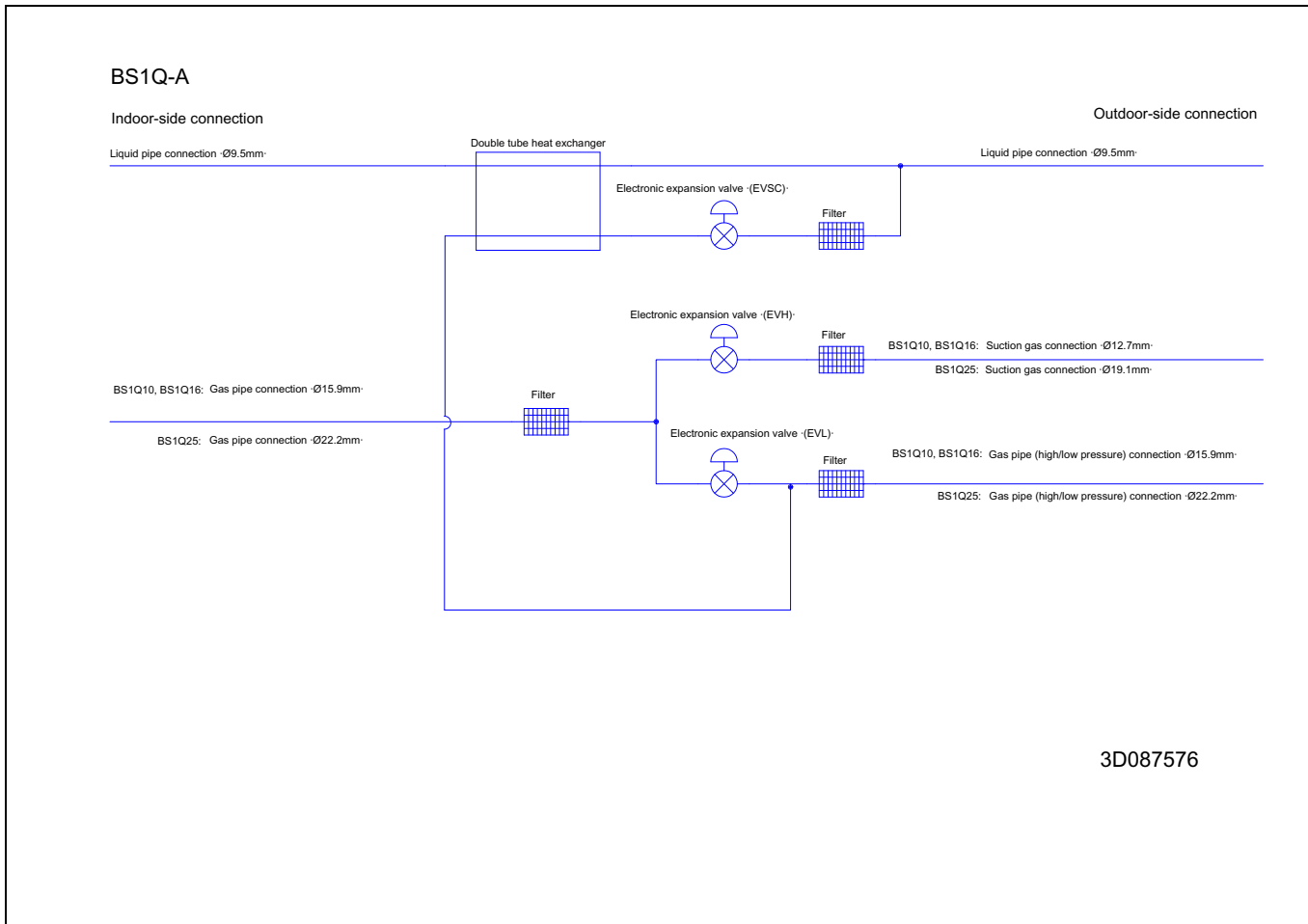
NOTES

1. Electric box can also be fixed on the other side of the unit.
2. Be sure to install an inspection door at electric box side.
3. Attached pipe(1) and Attached pipe(2) is used in case of connecting with indoor capacity index more than 160 and less than 200.
In case of connecting one indoor unit of 200 type, only gas pipe connection port need Attached pipe(1).
4. Small sound will be made when changing over the motor operated valve, which may be disturbing.
Do not install it at the place such as bedroom under roof.

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7 Piping diagrams

7 - 1 Piping Diagrams



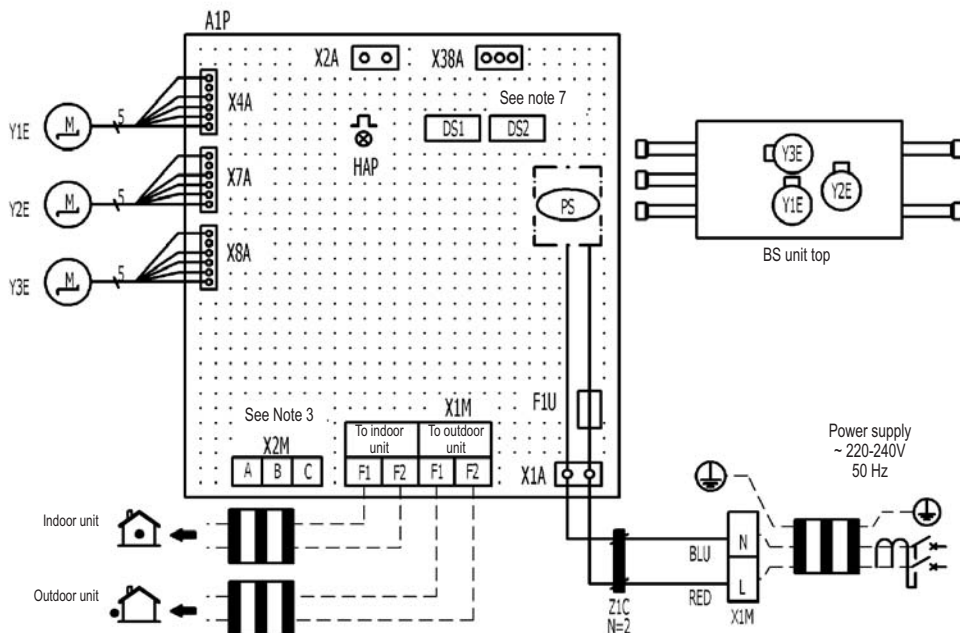
8 Wiring diagrams

8 - 1 Wiring Diagrams - Single Phase

8

BS1Q-A

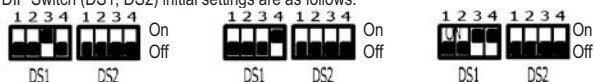
Wiring Diagram



A1P	Printed circuit board	X1M	Terminal strip (power)	Y3E	Electric expansion valve (main suction)
DS1,DS2	DIP switch	X1M(A1P)	Terminal strip (control)	Z1C	Noise filter (ferrite core)
F1U	Fuse (T; 3.15A, 250V)	X2M	Terminal strip (C/H selector)		Connector for optional parts
HAP	Flashing lamp (service monitor-green)	Y1E	Electric expansion valve (sub cool)	X2A	Connector (wiring external control adapter for outdoor unit)
PS	Switching power supply	Y2E	Electric expansion valve (main discharge)	X38A	Connector (adapter for multi tenant)

NOTES

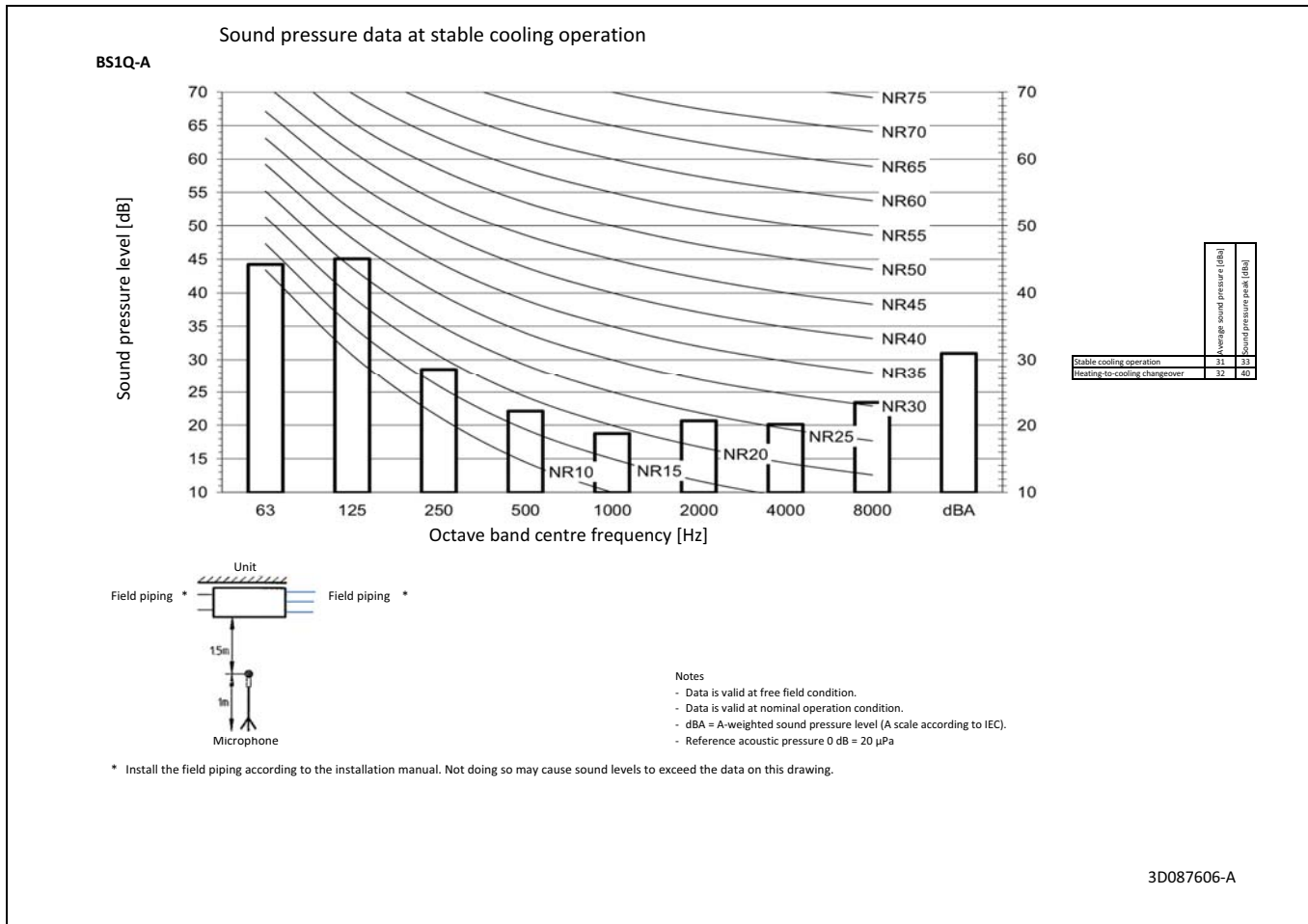
- This wiring diagram applies to the BS unit only
- : Terminal strip, □○□ : Connector, —○— : Terminal, —■— : Field wiring, ⊕ : Protective earth
- When using the cool/heat selector (optional accessory), connect it to terminals A, B and C on X2M.
- As for wiring to the indoor unit (F1) (F2) and outdoor unit (F1) (F2)
- Symbols shows as follows: (BLU: Blue, RED: Red)
- Use copper conductors only.
- DIP Switch (DS1, DS2) initial settings are as follows:



For using DIP Switch (DS1, DS2), refer to installation manual or "service precaution" label on EL. Compo. box cover.

9 Sound data

9 - 1 Sound Pressure Spectrum





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