

AHU EEV KIT 安装指南

* 使用产品前请仔细阅读本安装说明书，并请妥善保管。

合格证

检验员: _____

三星电子株式会社

制造商：三星电子株式会社
原产地：韩国制造
销售商名称：三星（中国）投资有限公司
销售商地址：北京市朝阳区建国路乙218号京汇大厦2108室

安装时注意事项

请务必遵守如下警告和注意事项，保护安装技术人员和用户的安全。

请使用 R-410A 冷媒。

- 新冷媒 R-410A 内流入不纯物质(水分、异物)时，会对产品性能及其可靠性造成重大影响。请在冷媒管道施工时严格遵守注意事项。
- 属于混合冷媒，追加填充冷媒时请务必使用液体冷媒填充。(如用气体冷媒填充，可能会改变冷媒结构，对产品性能及其可靠性造成不良影响。)

有关安装 ⚠ 警告

安装、维护、清洁前请务必关闭所有电源供应来源。

请务必委托经销店或专业安装企业进行安装。

▶ 由非专业人员安装可能引发漏水、触电、火灾等问题。

请按照本安装指南准确安装施工。

▶ 如未能准确安装，将引发漏水、触电和火灾等。

本公司对于 AHU EEV KIT 安装不注意或者非专业人员安装引发的事故概不负责。

安装施工使用的配件请务必选用本公司提供的配件及指定参数的配件，并请使用指定工具施工。

▶ 如不使用指定的工具，可能会造成产品坠落、漏水、触电、火灾等。

填充冷媒时请务必使用 R-410A 冷媒。

▶ 使用 R-410A 以外的其他冷媒时，可能引发产品故障、爆炸等。

请切勿使用 R-22 冷媒用管道及扩口配件。

如在作业中发生冷媒气体泄漏，请务必通风换气。

▶ 如冷媒气体接触火烛，会产生有毒气体。

电源线受损时，务必由制造商、维修技术人员、具有同等资格者更换。

应由具有资格的电力施工技术人员根据《电力设备的有关技术标准》、《内线规定》及《安装指南》实施电力施工，请务必按照规定的电力参数安装。

▶ 电压下降、供应电压不足、不慎的电源施工、使用规定以外的电线等将引发触电、火灾等事故。

应使用规定的电线牢固连接配线，请牢固固定，以免对端口连接部分施加外力。

▶ 如连接或固定得不完全，可能引起发热、火灾等。

请务必使用铜线作电源线，所有配线和购买配件均请使用额定配件。

安装施工结束后请务必确认是否泄漏冷媒气体。

▶ 冷媒气体在室内泄漏并接触火烛时可能产生有毒气体。

有关安装 ⚠ 警告

按照本《安装指南》确实进行排水施工，确保冷凝水的排出；并请作好保温工作，以防产生结露。

▶ 如排水施工不充分，可能因漏水导致财产损失。

请勿在下列场所内安装。

▶ 充斥着矿物油的场所、厨房等较多飞散油烟和蒸气的场所：树脂配件热化将导致配件坠落或者引发漏水。

▶ 洗手间排气口或通风口出口等产生亚硫酸煤气等腐蚀性气体的场所：铜管、连接部分腐蚀可能引发冷媒泄漏。

▶ 放置有产生电磁波机器的场所：引发控制系统异常，进而导致无法正常运行。

▶ 可能泄漏可燃性气体的场所、漂浮有碳纤维或易燃粉尘的场所、存在稀释剂和汽油等挥发性易燃物质的场所：泄漏气体凝结在产品主阀门上时，可能引起火灾。

▶ 海滨或温泉地区等可能腐蚀室内机的场所。

▶ 直接受外部环境(温度/湿度/灰尘等)影响的场所

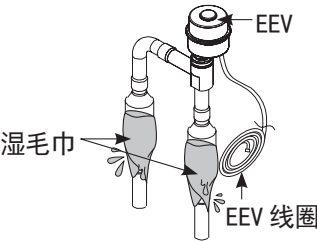
请在焊接 AHU EEV KIT 时遵守下列注意事项。

▶ 在管道上焊接产品时，焊接高温和火焰可能损坏设备。请先用防焰布包住可能受焊接影响损坏的部分，然后再开始作业。

▶ EEV可能受焊接高温影响损坏。请务必如图所示地先用湿毛巾等物品包住管道，然后再开始焊接。湿毛巾滴水会对焊接造成不良影响，因此请勿使湿毛巾滴水。

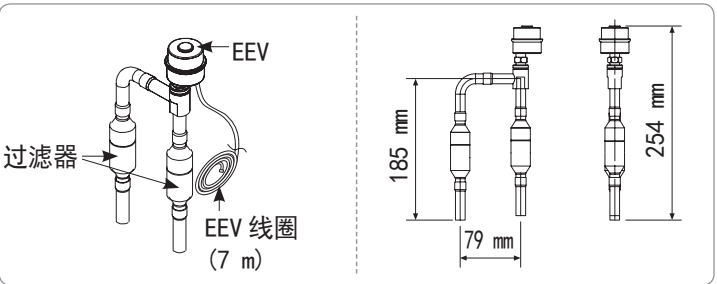
▶ 连接管道之间应互不干涉，请避免其接触产品。(震动时可能损坏。)

※ 因不遵守上述事项而导致的一切与安装有关的客户投诉均由安装公司负责。(维修费用由安装公司承担)



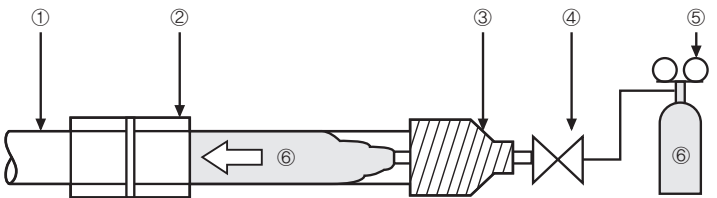
各部位名称和产品尺寸

电子膨胀阀组件



安装 AHU KIT

氮置换焊接



①	冷媒管道
②	要焊接的部分
③	胶带
④	手阀
⑤	氮气减压表
⑥	氮气

1. 焊接管道时请实施氮置换作业。

▶ 焊接管道时如不实施氮置换作业，管道内部将积累大量的氧化物，进而导致冷媒系统的阀门和压缩机无法正常运行。

2. 注入氮气时，应通过减压阀将氮气流量保持在 0.02 MPa 以下。(接触到皮肤时有感觉的程度)

安装电子膨胀阀组件

1. 请确认 AHU 内部是否安装了电子膨胀阀组件。

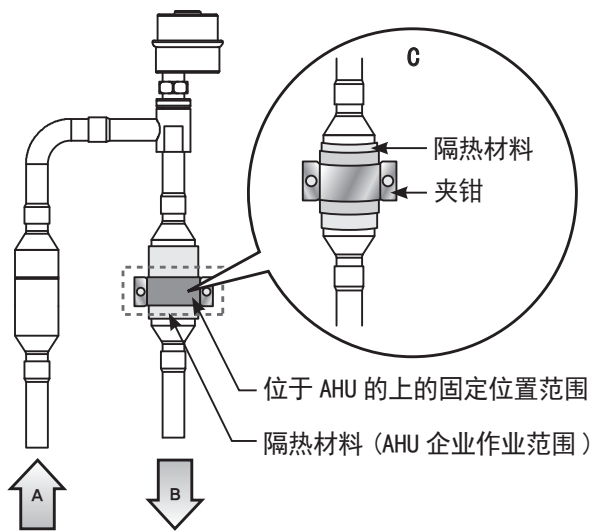
▶ 电子膨胀阀组件的管道部位可能产生结露，因此请在可能产生冷凝水的位置，粘贴保温材料处理。

2. 请确认是否正确连接进口、出口管。

3. 请务必确认是否垂直安装 ASS'Y EEV 主机。

▶ 应基于沿垂直方向安装的原则，务必在 ±15° 以内安装电子膨胀阀组件主机。超过相应角度安装时，无法保障电子膨胀阀组件的可靠性。

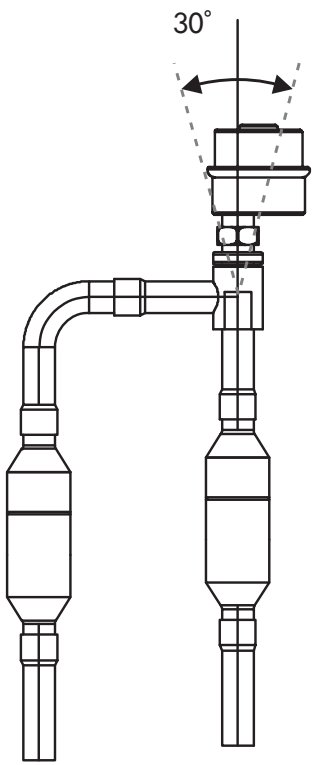
4. 请将 EEV 如“C”图所示牢牢固定于 AHU 的固定部位。



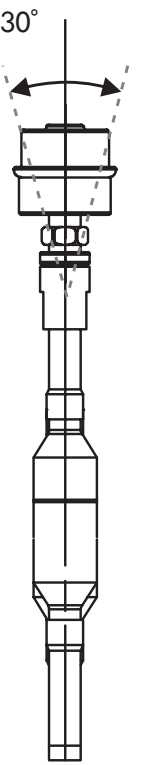
A: 来自室外机的高压管（进口）连接管径 $\varnothing 9.52$ mm

B: 送往AHU换热器的低压管（出口）连接管径 $\varnothing 9.52$ mm

垂直方向安装标准



垂直方向安装标准



5. 请粘贴标签贴纸，用于区分EEV维修服务。

▶ 请在电子膨胀阀体上方中央粘贴一处，再在电子膨胀阀线圈电线接插口处粘贴同样颜色的标签贴纸。

AHU EEV KIT Installation manual

Safety precautions

Please follow the following safety information for safety of the installer and the user.

Use R-410A refrigerant.

- When moisture or foreign substances enter into the refrigerant pipe using R-410A, it may affect the performance and reliability of the product. Safety precautions must be obeyed when installing the refrigerant pipe.
- Since R-410A is an azeotrope refrigerant, it must be charged in liquid phase. (A blend of the refrigerant may change if you charge in vapor phase, which could cause product malfunction.)

For installation ⚠ Warring

Cutoff all sources of power supply before installation, repair/ maintenance service or cleaning.

Consult qualified installer or dealer for installation.

- When installation is done by unqualified people, problems such as water leakage, electric shock or fire may occur.

Installation must be done properly according to this installation manual.

- When installation is not done properly, it may cause water leakage, electric shock or fire.

Manufacturer is not responsible for the incidents occurred by improper installation of AHU and EEV kit installed by unqualified people.

Use the supplied accessories, specified components and designated tools for the installation.

- Failure to use the specified components can cause product to fall down, water leakage, electrical shock, and fire.

Use R-410A refrigerant when charging the refrigerant.

- If the refrigerant other than R-410A is used, it may cause product failure or explosion.

Do not use the refrigerant pipe and flaring tools for R-22 refrigerant. You must ventilate the room if the refrigerant gas leaks during the installation.

- Toxic gas can be generated when the refrigerant gas gets in contact with flammable substance.

When the power cable is damaged, it must be replaced by manufacturer, service technician or person who has equivalent qualification.

Electric work must be done by qualified people, complying the national wiring regulations and installed according to the instruction stated in the installation manual and must comply regulated electrical specification.

- Voltage drop, insufficient voltage supply, careless power cable installation and using cables other than the ones that are regulated, may cause electric shock, fire or other accidents.

Wiring must be connected with the designated wires and it must be fixed securely so that it does not apply any external force to the connection part of the terminals.

- If connection or fixation is not properly done, it may cause heat generation or fire.

Power cable should be the ones with copper wire and all the wiring and purchased parts should be rated parts.

Gas leakage must be checked after installation is completed.

- Toxic gas can be generated when the refrigerant gas leaks, enters indoor and gets in contact with flammable substance.

For installation ⚠ Caution

Drain system must be constructed according to this installation manual so that condensation water drains out properly, and drains system should be kept warm to prevent dew condensation.

- If drain system construction is not done properly, water leakage may occur and cause property damage.

Do not install the product in following places.

- A place full of mineral oil, place where oil scatters or with oil vapors such as a kitchen: Plastic parts may get damaged and cause water leakage, or maybe even cause product to fall down.
- A place near exhaust pipes or ventilation outlet where corrosive gas such as sulfurous acid gas are being generated : Copper pipe and connection parts may corrode causing refrigerant leakage.
- A place with a machine that generates electromagnetic waves: The air conditioner may not operate normally due to problems in control system.
- A place where there is a danger of combustible gas leakage or the place where thinner or gasoline is handled : If the gas leaks and stays inside of the main valve, it may cause of fire ignition.
- A place near seashore or hot spring where there is a risk of outdoor unit corrosion.
- A place where external environments(temperature/ humidity/ dust, etc.) affect the product directly.

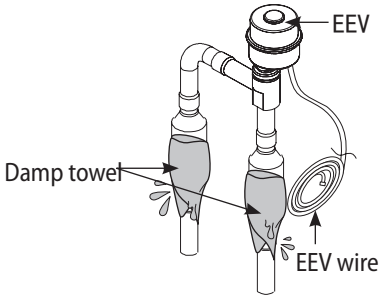
When brazing the AHU and EEV kit, be cautious with the followings.

- When brazing the product to the pipe, the unit may get damaged by the heat and flame from brazing. Use a damp towel to protect the part where there is a risk of getting damaged during brazing.

- EEV could be damaged by heat from brazing. Wrap the pipe with a damp towel and braze it as shown in the illustration. Also, water dripping from the damp towel may interrupt the brazing, so make sure the water does not drip from the damp towel.

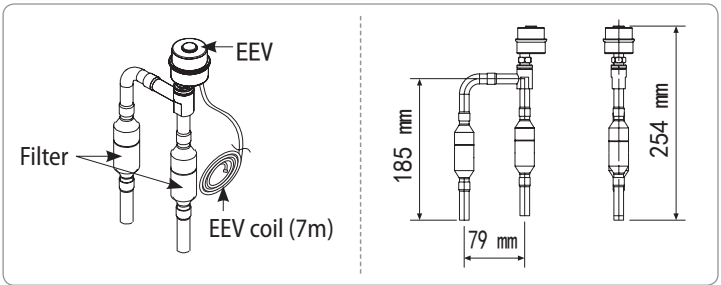
- Make sure that connected pipes does not interrupt each other or make contact with the product. (Vibration may cause damage to the pipes.)

*Installer is responsible for any installation related claims from the user occurred by neglecting warnings and cautions stated in this manual. (Installer will be responsible for any service charges that may occur)



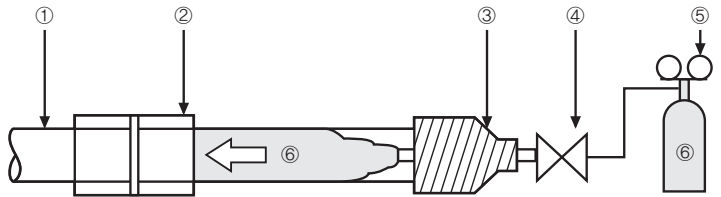
Name of the parts and product dimension

ASS'Y EEV



Installing the AHU Kit

Nitrogen flushing while brazing



①	Refrigerant pipe
②	Part to be brazed
③	Tape
④	Hands valve
⑤	Pressure reducing valve
⑥	Nitrogen gas

1. While brazing the refrigerant pipes, flush them with nitrogen gas.

- If you do not perform nitrogen flushing while brazing the pipes, oxide may form inside the pipe and cause malfunction of the valve and compressor.

2. When injecting the nitrogen gas, adjust the flow rate of the nitrogen gas with a pressure reducing valve to be under 0.02 MPa. (Just so that you may feel it slightly when it touches your skin)

Installing the ASS'Y EEV

1. Check if the ASS'Y EEV (Electric Expansion Valve) is installed inside the AHU.

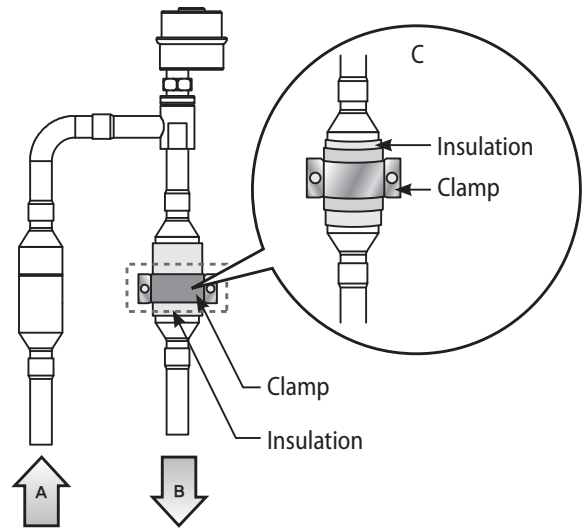
- Condensation may occur around pipes of the ASS'Y EEV (Electric Expansion Valve), therefore ASS'Y EEV (Electric Expansion Valve) must be installed where condensate water can be drained.

2. Check if the IN, OUT pipes are correctly connected.

3. Check if the ASS'Y EEV (Electric Expansion Valve) is installed vertically inside the AHU.

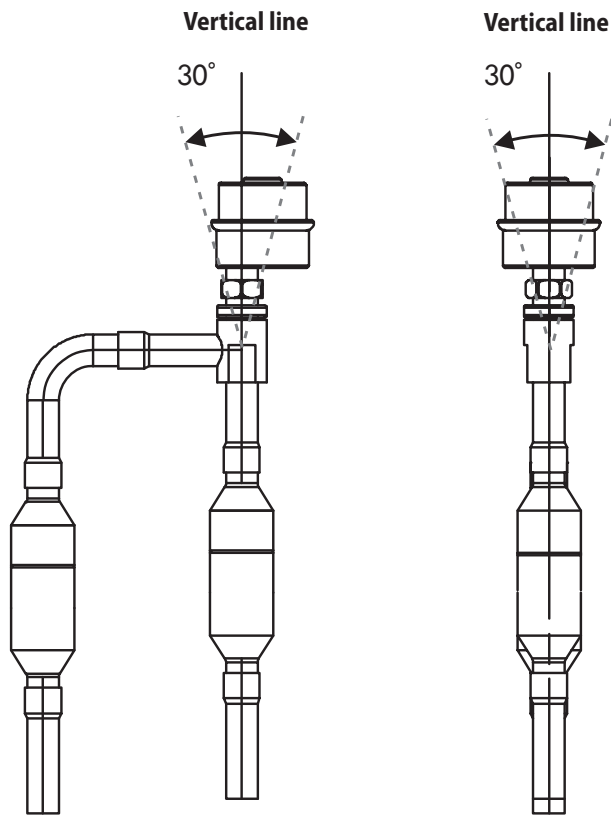
- ASS'Y EEV (Electric Expansion Valve) must be installed within $\pm 15^\circ$ of the vertical line. If the angle exceeds $\pm 15^\circ$ of the vertical line, liability of the ASS'liability liability (Electric Expansion Valve) cannot be guaranteed.

4. Securely fix the EEV to the fixing groove of the AHU as shown in the figure 'C'



A :Diameter of the high pressure pipe (IN) from the outdoor unit $\phi 9.52$ mm

B: Diameter of the low pressure pipe (OUT) to the heat exchanger of the AHU $\phi 9.52$ mm



5. Attach the label sticker for service classification of the EEV.

- Attach one on the top middle part of the ASS'Y EEV VALVE BODY and other sticker with the same color on the VALVE WIRE HOUSING.