

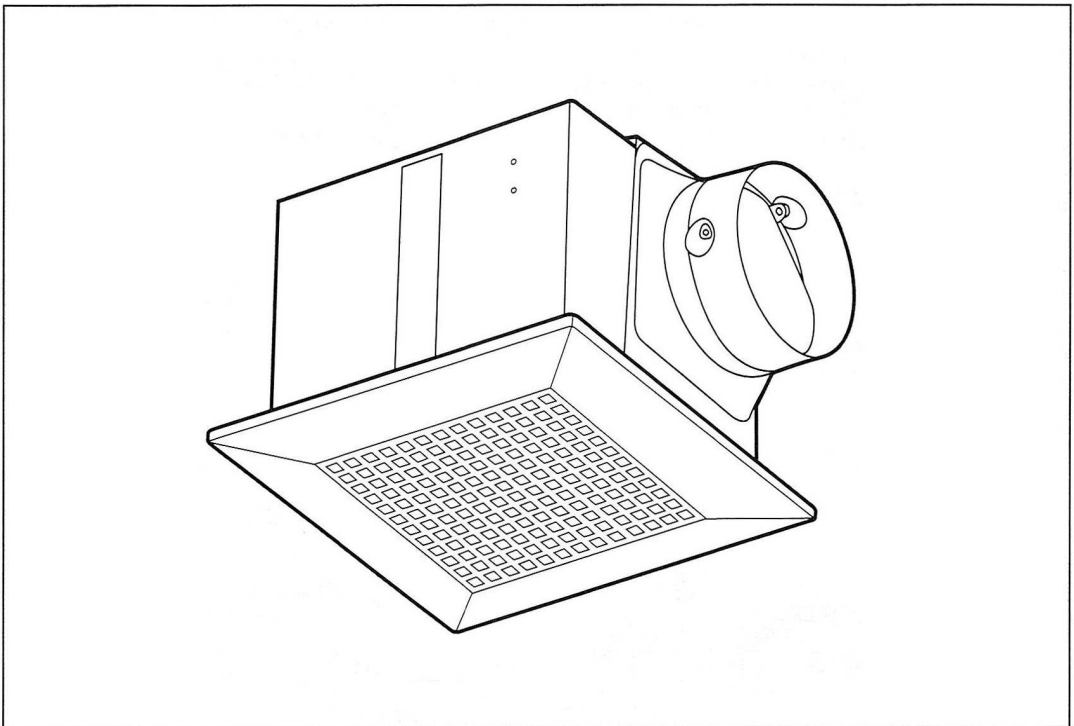
Panasonic

Ventilating Fan

排氣扇

Installation And Operating Instruction 安裝使用說明書

Model 型號： FV-27CMD1
FV-27CMH1



Before operating this product, please read the instruction carefully and keep this instruction for future use. Please give this instruction to the end user.

使用本產品前請先詳細閱讀本說明書，及保存本說明書以供將來參考用。
請把這份說明書交給最終用戶。

ACCESSORY LIST 包裝附件清單

Please find enclosed some accessories in the package and contact our after-sales service center or franchiser if it is short of quantity.

隨排氣扇產品包裝箱有以下附件，開箱後請清點是齊全，若不齊全，請與我公司售後服務中心或經銷商聯系。

Code 代號	Photo 圖樣	Name and function 名稱及用途	Quantity 數量
①		Installation and operating instruction 安裝使用說明書	1
②		Thumb screw 手擰螺釘	1
③		Tapping screws 固定框架和接頭組合到木框的自攻螺釘	6
④		Louver 百葉窗	1

SAFETY INSTRUCTIONS 安全指引

To avoid any injury or damage, please follow the rules as mentioned below:

為了防止危害或損傷到使用人和其他人的人身與財產，就安全方面務必遵守的事項作如下說明。

■ Any damage happened due to NOT following the rules or by mis-use, the levels of damage are categorized and explained as indicated below:

沒有遵守指示或錯誤地使用時，所引起的危害或損傷的程度，用下列符號進行分類、說明。



WARNING
警告

Those things shown in this column indicate that there is possibility of causing death or severe injury.

本標誌所表示的內容為“可能造成人員重傷或傷亡”。



CAUTION
注意

Those things shown in this column indicate that there is possibility of causing injury to the users or damage.

本標誌所表示的內容為“可能造成人身傷害和其它物品損害”。

■ Those rules which are expected to be followed are illustrated and explained by the below diagrams:
對希望遵守的內容和種類，用下列符號進行分類、說明。



This symbol indicates the item “PROHIBITED” to do.
此標誌表示為禁止事項



This symbol indicates the “COMPULSORY” item that must be followed without fail.
此標誌表示為強制事項



This symbol indicates the item need to “PROVOKING ATTENTIONS”.
此標誌表示為提示注意事項



WARNING
警告



All installation and maintenance shall be done by quantified person. Neither unauthorized modification, repair nor disassembly is allowed.
所有安裝和保養應由專業服務人員完成。禁止擅自改造、修理、拆分。



Disconnect power supply before inspection, may cause injury or electric shocks.
檢查前，必須切斷電源，可能會引起受傷或觸電。



Prohibit using water or other liquids to clean this product directly, may cause short circuit or electric shock.
禁止用水及其它液體直接清潔本產品，可能會引起短路或觸電。



Prohibit turning on or off this product when gas is leaking, electric spark might have caused an explosion.
當發生煤氣洩漏時，禁止開、關本產品，可能會產生電火花而引起爆炸。

INSTALLATION CAUTIONS

安裝注意事項

WARNING 警告



Grounding should be connected, may cause electric shocks.

必須有接地裝置，當出現故障或漏電時，可能會觸電。



Any voltages other than 220V can not be used, may cause fire or electric shock, may cause the product damage. 請勿使用220V以外的電源，可能會引起火災、觸電，可能會損壞本產品。

CAUTION 注意



Prohibit installing in places with high temperatures. 禁止安裝在高溫場所。



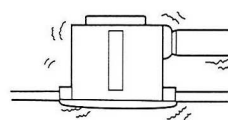
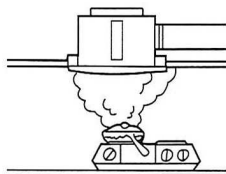
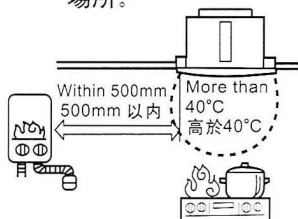
Prohibit installing in places with oil fumes. 禁止安裝在有油煙的場所。



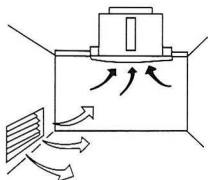
Prohibit installing in places with steam. 禁止安裝在有蒸氣的場所。



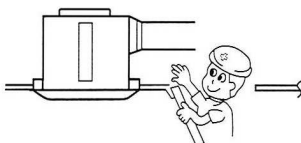
Install securely. 安裝要牢固。



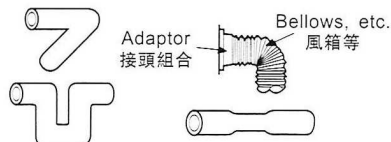
Provide a suction hole. 設有一個吸入孔。



Provide an 45cm access door for inspection and maintenance. 應有一個45cm以上的方形檢查孔。



Prohibit forming the duct as shown below. 禁止把管道做成如下所示的外型。



Use a device for disconnection from the supply, having a contact separation of at least 3mm in all poles (switch), which must be incorporated in the fixed wiring in accordance with the local electrical wiring rules.

在安裝時，需在供電線路中安裝其觸點開距不少於3mm的雙極斷開裝置(雙極開關)，必須按照當地的電氣設備技術規程進行連接。



The lowest surface of this ventilating fan should be mounted above 2.3m from the floor after installation. 安裝之後，本產品的最低面至地面距離不少於2.3m。



Prohibit vertically or aslant installation of the ventilating fan. 禁止將排氣扇傾斜或垂直地安裝。



The precautions must be taken to avoid the back-flow of gases into the room from the open flue of gas or other fuel-burning appliance. 必須防止煙道敞開或其他明火的器具產生的氣體回流進入房間。



Prohibit installing the ventilating fan on window or outer wall. 禁止將排氣扇安裝於窗戶或牆壁外。

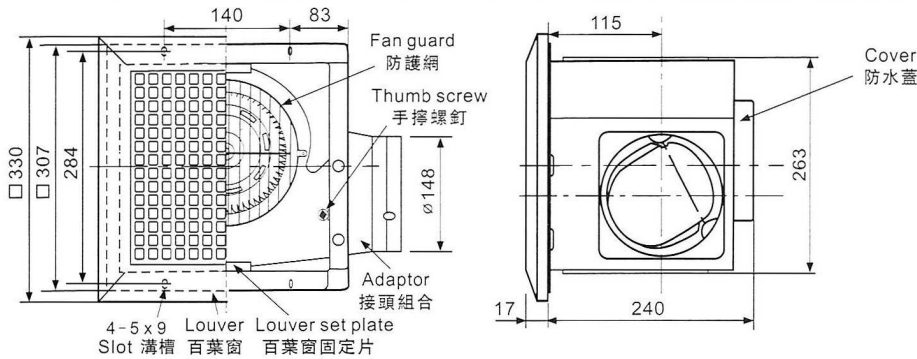


This product is applicable to the places with low humidity, such as living room, lavatory etc. 本產品用於起居室、盥洗室等濕度不太高的場所。



Movable distance of power cord not less than 300mm after installation. 安裝之後，電源線的可移動距離不少於300mm。

NAME AND DIMENSIONS OF EACH PART 部品名稱和規格



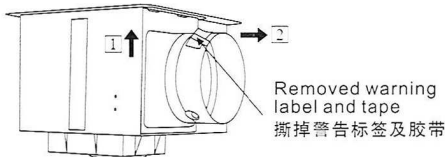
Unit 單位: mm 毫米

Model 型號	Duct Size 管道尺寸
FV-27CMD1 FV-27CMH1	Ø 150

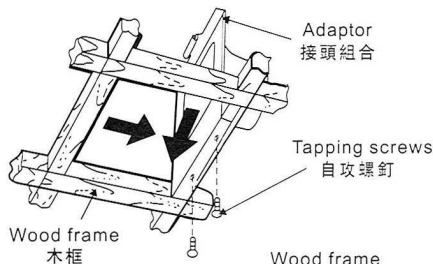
INSTALLATION 安裝

1-A Body enclosure installation (with ceiling joist) 機體安裝 (用天花板攔柵)

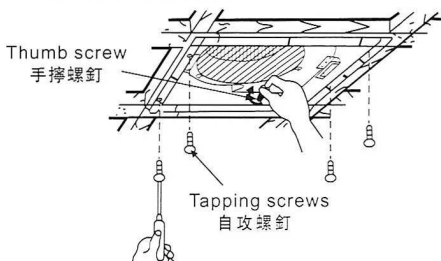
- ① Removed the adaptor, warning label and tape on the adaptor
按图示方法拆下接头组合, 并撕掉接头组合上的警告标签及胶带。



- ③ Attach the adaptor to the wood frame.
將接頭組合安裝在木框上。

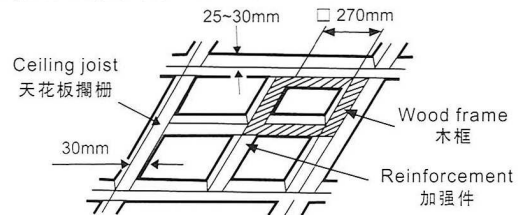


- ⑤ After fixing temporarily with thumb screw, secure with tapping screws (4 pcs.).
在使用手擰螺釘臨時地固定后, 用自攻螺釘 (4顆) 牢固地固定起來。



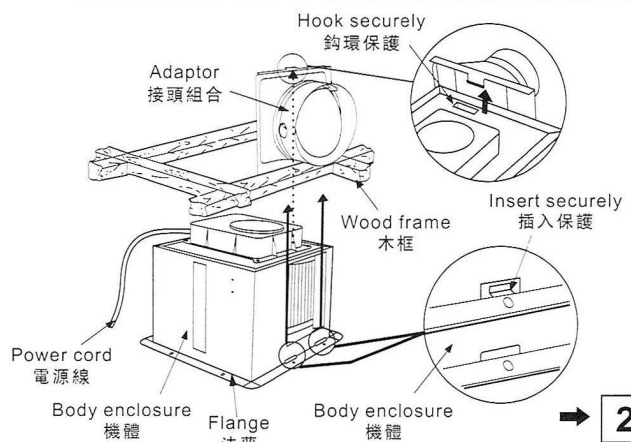
- ② Construct the wood frame and attach it horizontally to the ceiling joist. Prohibit attaching the frame in other direction. The space should not be less than 20mm between the ceiling and the top of the body.

築造木框以及將木框水平地安裝在天花板攔柵上, 禁止在其它方向安裝。注意應保持機體頂部和天花板的距離不小於20mm。



⚠ Ceiling joist must be subjected to static load more than five times the weight of the product.
天花板攔柵必須承受大於本產品的5倍重量。

- ④ Insert the body enclosure into the wood frame and connect it to the adaptor.
將機體安裝在木框內, 並將機體跟接頭組合連接起來。



➔ 2

INSTALLATION (CONTINUED) 安裝 (續)

1-B Body enclosure installation (with anchor bolts install) 機體安裝 (用地脚螺栓安裝)

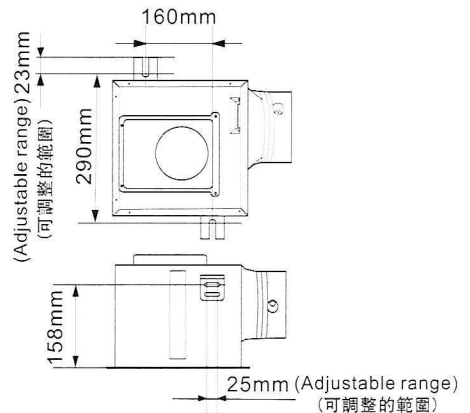
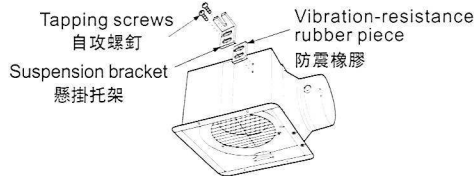
- ① Attach the suspension bracket FV-KB021C (optional) with tapping screws (suspension bracket accessories).

The space should not be less than 20mm between the ceiling and the top of the body.

用自攻螺釘固定懸掛托架 FV-KB021C (需要另外選購)。(懸掛托架附件)

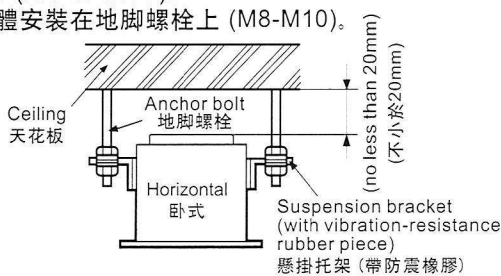
注意應保持機體頂部和天花板的距離不小於20mm。

- Ensure to use the tapping screws enclosed in accessory packing of suspension bracket FV-KB021C. 必須使用懸掛托架FV-KB021C附件包中的自攻螺釘。
- Suspension bracket position 懸掛托架部位



- ② Mount the body enclosure on the anchor bolts (M8 to M10).

將機體安裝在地脚螺栓上 (M8-M10)。

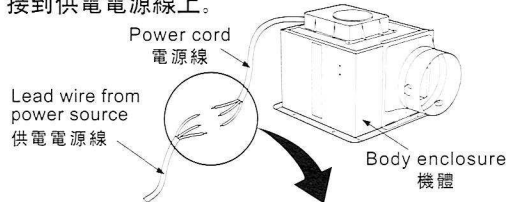


➔ 2

2 Power cord connection 電源線連接

Connect the power cord (included earth) to lead wire in accordance with the wiring diagram.

根據接線示意圖，將機體電源線(包括地線)連接到供電電源線上。



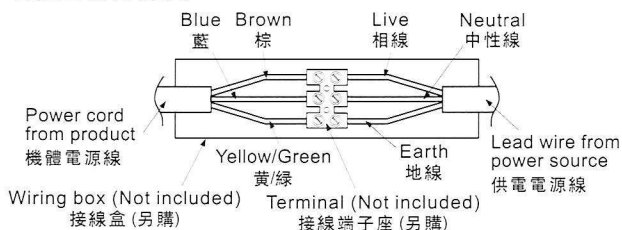
All wiring shall be done by qualified person, wiring method should follow the local electrical wiring rules. Any mis-wiring may cause fire or electric shock. 所有的接線操作應由專業服務人員完成，具體的接線方法必須按照當地的電氣設備技術規程進行連接。錯誤的接線可能會引起火災、觸電。

Wiring should be firmly connected without any loose.

電源連接處必須牢固，不能有鬆動。

Connection example as follows:

電源連接方法例：



- It is required to use terminal (not included) that complies IEC 60998, wiring box (not included) that complies BS 4662. 要求使用符合IEC 60998的接線端子座(另購)，符合BS 4662的接線盒(另購)。

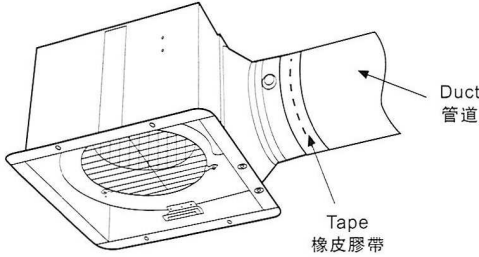
- Make sure all connections are fastened firmly after wiring is finished. 接線完成后，必須檢查所有連接是否牢固。

➔ 3

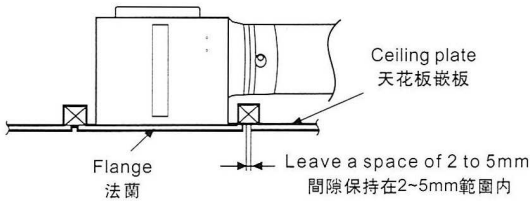
INSTALLATION (CONTINUED) 安裝 (續)

3 Duct connection and adhesion of ceiling plate 管道連接和天花板嵌板的粘接

- ① Insert the duct into the adaptor and secure it with tape. (Suspend the duct from the ceiling so that no force is applied to the body enclosure.)
將管道裝入連接件上，然后用橡皮膠帶扎緊。(將管道從天花板上懸掛下來，以防止外力施加于機體)。

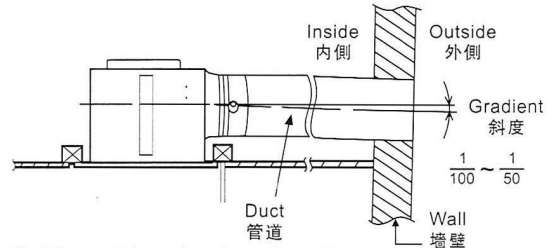


- ② Adhere the ceiling plate to the flange, leaving a space of 2 to 5mm in between.
將天花板嵌板粘接到法蘭上，將其之間的間隙保持在2~5mm範圍內。



- Install the duct horizontally with a gradient downwards to the outside. And the outlet of duct shall be located to avoid the rain ingress. (The opening size of the walling is at least $\varnothing 168\text{mm}$)

管道水平向下傾斜地安裝到外側，其出口應置在能避免雨水進入處。(牆壁的最小開口尺寸為 $\varnothing 168\text{mm}$)



- ③ Mount the pipe hood and vent cap (optional) on the outer wall.
將管罩和管蓋(需要另外選購)安裝到牆外。

Pipe Hood 管罩	Vent Cap 管蓋
FV-MCX150P	FV-VCX150P



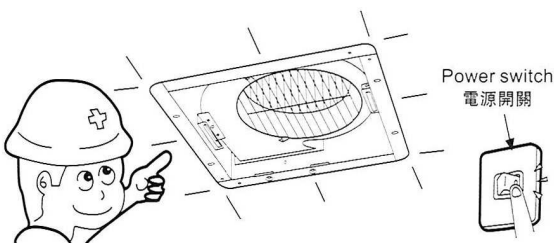
➔ 4

4 Test run and louver attachment 試運轉和百葉窗的安裝

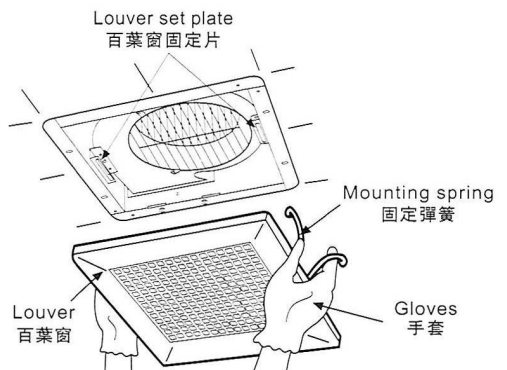
- ① When the power is turned on, check for malfunctions as follows:
- Fan rotation normal?
 - No abnormal sound or vibration?

在接通電源后，檢查一下是否發生以下各種異常現象：

- 風扇是否正常地旋轉？
- 有否發生不正常的聲音或者震動？



- ② Insert the mounting springs into the slots and mount the louver to the body enclosure. (Install with gloves)
將固定彈簧裝入溝槽內，將百葉窗裝在機體上。(帶手套安裝)



MAINTENANCE 維修保養



Routine maintenance must be done every year. Disconnect power source before maintenance.

每年應該進行常規的維修保養。在維修工作之前，切斷電源。



If the power cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard. It is recommended to use 227 IEC 53 (RVV) (0.75mm²)X3.

如果電源線損壞，為了避免危險，必須由制造廠或其維修部或有資格的专业人員更換，推薦使用通過强制認證的227 IEC 53號(0.75mm²)三芯線。



Prohibit using petrol, benzene, thinner or any other such chemicals for cleaning the ventilating fan.

切勿使用汽油、苯、稀釋劑或者其它諸如此類的化學品擦拭排氣扇。



Prohibit allowing water to enter motor.

切勿讓水進入馬達。



Prohibit immersing resin parts in water over 60°C.

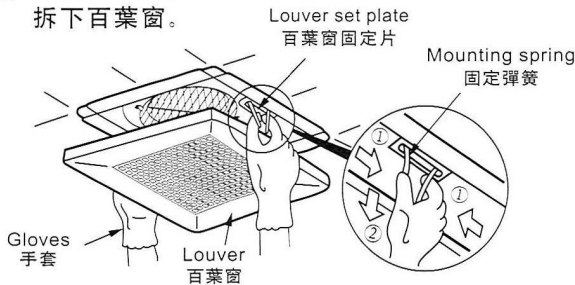
切勿把塑料部品浸入高于60°C的水中。

Cleaning the product

清洗產品

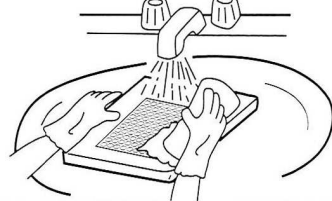
① Remove louver.

拆下百葉窗。



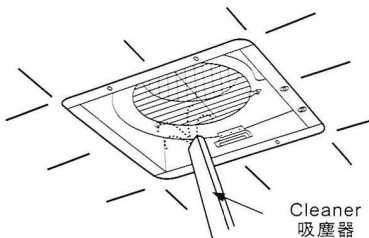
② Wash and clean louver, please dried the louver with a dry soft cloth or by air.

清洗百葉窗，洗淨的百葉窗請用柔軟的干布抹干或風干。



③ Remove dust and dirt on ventilating fan body using a cleaner.

使用吸塵器清潔排氣扇機體上的污物。



④ Using a cloth dampened with kitchen detergent, remove any dirt from ventilating fan body. Wipe dry with new cloth. Replace louver.

使用軟布沾上厨房用洗滌劑后擦掉排氣扇機體上的污物，再用干净軟布擦淨。重新裝上百葉窗。

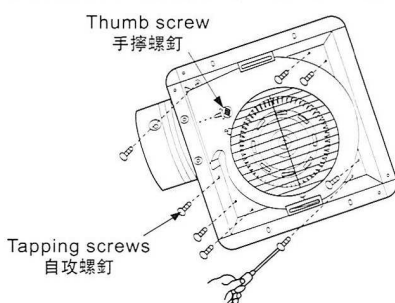


Repairing wiring

維修配線

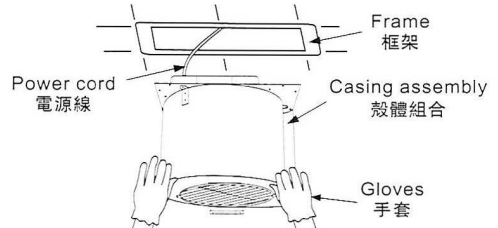
① Remove louver, tapping screws (8 pcs) and thumb screw (1 pcs).

拆下百葉窗、自攻螺釘(8顆)和手擰螺釘(1顆)。



② Remove casing assembly, then routine maintenance. (No need remove frame) It must be maintained by manufacturer or its service agent, or a similarly qualified person.

拆下殼體組合，進行維修。(不需要拆下框架)必須由制造廠或其維修部或有資格的专业人員維修。



MAINTENANCE 維修保養 (續)



This product is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the product by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the product during maintenance.

本產品不適合有殘障、智障或精神障礙的人士，或缺乏經驗、常識者(包括兒童)維護使用，除非在負責他們安全的人士的看護或指導下使用。

兒童在維護保養期間，應該有人進行看護，以防將產品當作玩具。

SPECIFICATIONS 規格

Model 型號	Voltage 電壓 [V]	Frequency 頻率 [Hz]	Power consumption 功率 [W]	Air delivery 排氣量 [m ³ /h]	Noise 噪音 [dB]	Static pressure 靜壓 [Pa]	Weight 重量 [kg]
FV-27CMD1	220	50	26	300	32	140	5.6
FV-27CMH1	220	50	43	400	38	170	5.6

Notes:

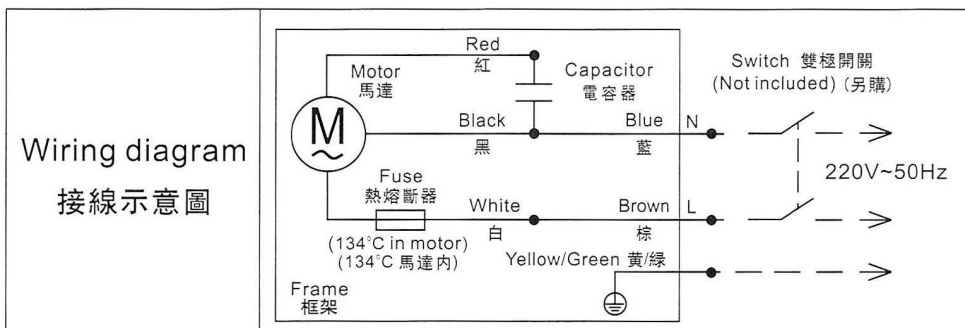
1. The values of power consumption, air delivery and noise are specified at the static pressure of 0 Pa.
2. The values of noise level are A weighted average sound pressure level, the mean value measured by our company, within +3dB and -7dB tolerance.
3. The values of noise level are averaged the test result when tested at the 1m of left side, right side, bottom side in the max air delivery in noise test room.
4. The values of air delivery and static pressure are the mid-points of results measured by our company, with $\pm 10\%$ tolerance.
5. Any changes in these values will not be further noticed.

注意:

1. 排氣量、功率、噪音值等數據是在靜壓為0Pa狀態下的數值。
2. 噪音值是A計權平均聲壓級，是本公司測試結果的中心值，有+3dB，-7dB的公差範圍。
3. 噪音是指在噪音測試室內，最大排氣量時，在本體的左側、右側、下方各1m處測定的噪音值的平均值。
4. 排氣量和靜壓是本公司測試排氣量結果的中心值，有 $\pm 10\%$ 的公差範圍。
5. 上述參數如有變動恕不另行通知。

■ Insulation class E

E級絕緣



Panasonic Corporation

<http://panasonic.net>