

Panasonic

Ventilating Fan
換氣扇

Operating and Installation Instructions 安裝使用說明書

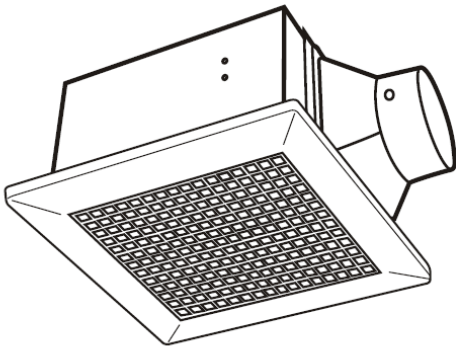
Model No. 型號: FV-24CMU1
FV-24CMD1
FV-24CMH1

Thank you very much for having purchased Panasonic Ventilating Fan.
在此誠摯地感謝您購買 Panasonic 換氣扇

Please read these instructions carefully before attempting to install, operate or service the Panasonic Ventilating Fan. Failure to comply with instructions could result in personal injury and/or property damage. Please retain this booklet for future reference.

安裝、使用和維護 Panasonic 換氣扇前，請仔細閱讀本說明書。不遵照此說明書進行操作有可能會導致人員受傷和/或財產損失。請妥善保管好此說明書以備日後參考。

Table of contents 目錄







SUPPLIED ACCESSORIES	2
包裝附件清單	
SAFETY INSTRUCTIONS	2
安全指引	
INSTALLATION CAUTIONS	3
安裝注意事項	
HOW TO INSTALL	4-6
安裝方法	
PART NAME AND DIMENSIONS	6
部件名稱和尺寸	
MAINTENANCE	6-8
日常使用和維修保養	
WIRING DIAGRAM	8
電氣原理圖	
SPECIFICATIONS	8
規格	

SUPPLIED ACCESSORIES 包裝附件清單

The following accessories are provided with the ventilating fan in package. When you unpack, check if the accessories are all included. If not, please contact your dealer.

隨換氣扇產品包裝箱有以下附件，開箱後請清點是否齊全，若不齊全，請與經銷商聯繫。

Appearance 示意圖	Name and Purpose 名稱及用途	Quantity 數量
	Operating and Installation Instructions 安裝使用說明書	1
	Tapping Screw, used to install the frame to the wooden frame 固定框架和接頭組合到木框的自攻螺絲釘	6
	Thumb screw 指擰螺釘	1
	Louver 百葉窗	1

SAFETY INSTRUCTIONS 安全指引

Please observe strictly
請務必遵守

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

This indication means: Must be treated seriously that this may result in death or serious 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

This indication means: It may result in physical injury or damage to other property.

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”。

The types of details to be observed are classified and explained in the following illustrated display. (Below are the series of illustrated displays)

務必遵守的內容分類，用標誌區分說明如下：



This type of pictorial symbol indicates a "Prohibited" action that must be avoided.

此標誌表示為禁止事項



This type of pictorial symbol indicates a "Compulsory" action that must be performed.

此標誌表示為強制事項



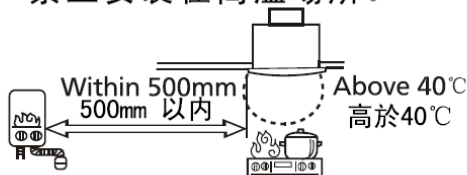
This type of pictorial symbol indicates a "Cautious" action that needs attention.

此標誌表示為提示注意事項

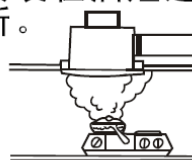
INSTALLATION CAUTIONS 安裝注意事項



Do not install this product in places with high temperature.
禁止安裝在高溫場所。



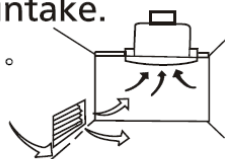
Do not install this product in places with excessive oil fume.
禁止安裝在油煙過多的場所。



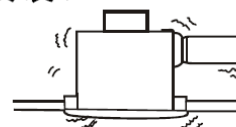
Do not install this product in places with excessive steam.
禁止安裝在有蒸氣過多的場所。



Be sure to provide an appropriate opening for air intake.
房間應有進氣孔。



Install this product securely.
牢固地安裝。



Make sure that a square inspection hole of at least 45 cm is available.
應有一個45cm以上的方形式檢查孔。



Provide electrical grounding.
設有電氣接地。



Do not form the duct as shown below.
禁止把管道做成如下所示的形狀。



Installation regulation concerning local requirement should be fulfilled.
請依照本地執法部門或相關機構的要求及規則安裝此產品。



This fan must be installed by a qualified technician. Otherwise, it possible to dropped down.
此換氣扇必須由有資格的專業人員進行安裝。否則產品可能會掉落。



Use a device for disconnection from the supply, having a contact separation of at least 3 mm in double poles (switch), which must be incorporated in the fixed wiring in accordance with the local electrical wiring rules.
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得少於2.3m。



For this fan, precautions must be taken to avoid the back-flow of gases into the room from the open-flue of gas or other fuel-burning appliances.
必須避免氣體從敞開的氣道或其他的明火設備回流進室內。



Do not install the power switch in the bathroom.
禁止將電源開關安裝在浴室內。



Do not install the ventilating fan outside of the window or the wall.
禁止將換氣扇安裝於窗戶或牆壁外。

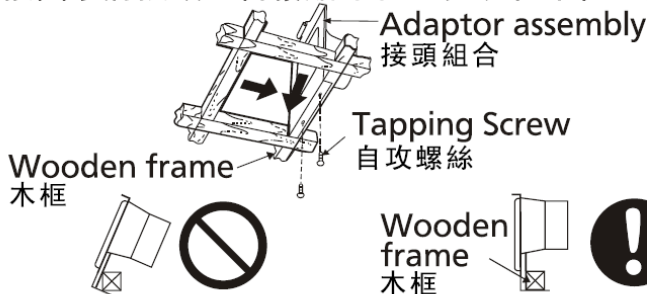
HOW TO INSTALL 安裝方法

1-A Fan Body Installation (with ceiling joist) 機體安裝(用天花板格柵)

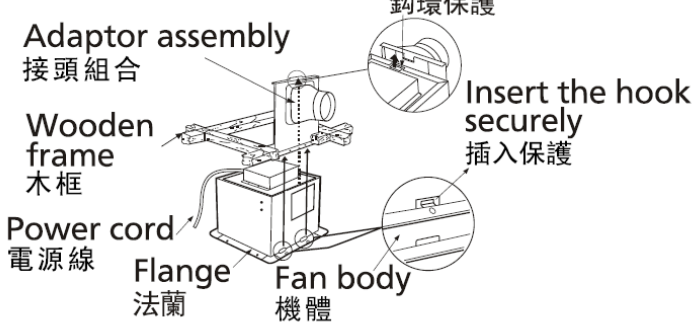
- ① As showing in the figure, remove the adaptor assembly and peel off the caution label and adhesive tape from the adaptor assembly.
按圖示方法拆下接頭組合，並撕掉接頭組合上的注意標籤及膠帶。



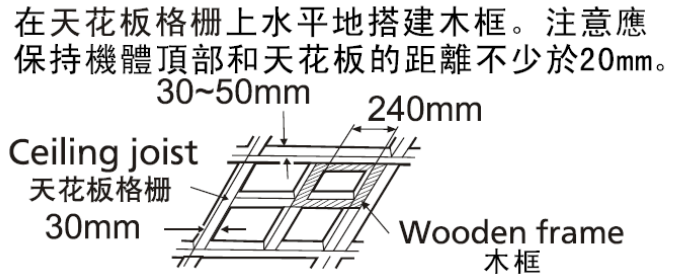
- ③ Attach the adaptor assembly to the wooden frame as shown in the figure.
按圖示將接頭組合緊貼木框並安裝在木框一邊。



- ④ Insert the fan body in the wooden frame, and connect it to the adaptor assembly.
將機體安裝在木框內，並將機體與接頭組合連接起來。

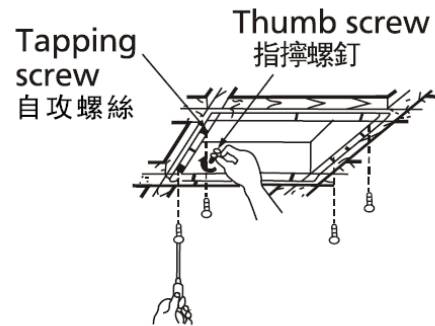


- ② Build a wooden frame horizontally from the ceiling joist. Note that the distance between the top of the fan body and the ceiling should be at least 20mm.



- ! Ceiling joist must be subjected to static load more than five times the weight of the product.
天花板格柵必須能承受大於本產品的5倍重量。

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



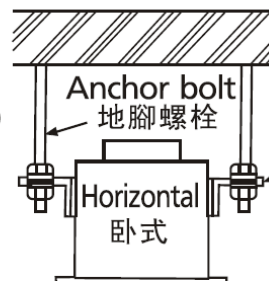
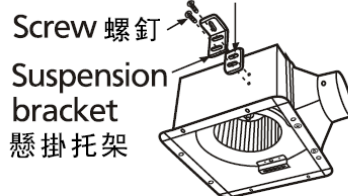
→ 2

1-B Fan Body Installation (with anchor bolts) 機體安裝(使用螺栓安裝)

- ① Attach the suspension bracket FV-KB021C (optional) with screws. (suspension bracket accessories). The space should not be less than 20 mm between the ceiling and the top of the body.

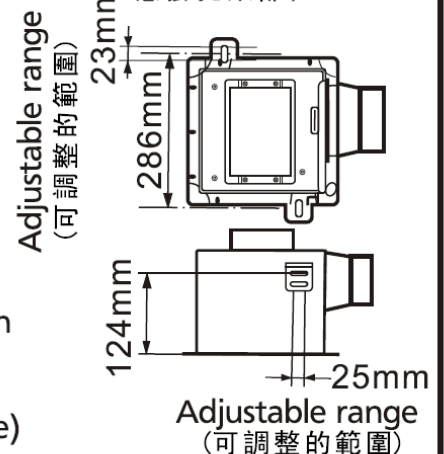
用螺釘固定懸掛托架FV-KB021C (需要另外選購)。(懸掛托架附件) 注意應保持機體頂部和天花板的距離不小於20mm。
The screw length should not exceed 8 mm.
使用的螺絲長度不能超過8mm。

Vibration-resistance rubber piece
防震橡皮件



Suspension bracket (with vibration-resistance rubber piece)
懸掛托架(帶防震橡皮件)

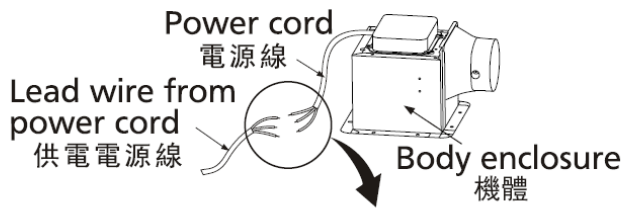
Suspension bracket position
懸掛托架部位



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.

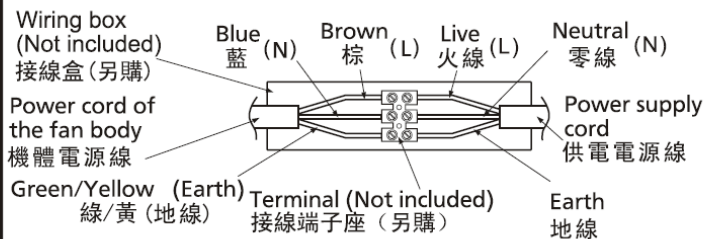
所有的接線操作應由專業服務人員完成，具體的接線方法必須按照當地的電氣設備技術規程進行連接。錯誤的接線可能會引起火災、觸電。

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：



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

It is recommended to use 227 IEC compliance no.53 wire, which sectional area is not less than 0.75mm^2 . 推薦使用通過強制認證的227 IEC 53號線且截面積不少於 0.75mm^2 。

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IEC60998的接線端子座(另購)，符合BS4662的接線盒(另購)。

Make sure all connections are fastened firmly after wiring is finished.

接線完成後，必須檢查所有連接是否牢固。

→ 3

3 Duct Connection and Ceiling Plate Installation 風管連接和天花板嵌板的安裝

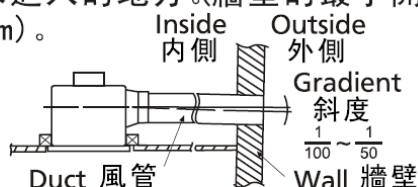
① Insert the duct into the adaptor assembly, and tighten it with adhesive tape (not supplied). (Suspend the duct from the ceiling to prevent any external force onto the fan body).

將風管裝入接頭組合上，然後用膠帶(自備)紮緊。(將風管懸掛在天花板上，以防止外力施加於機體)。



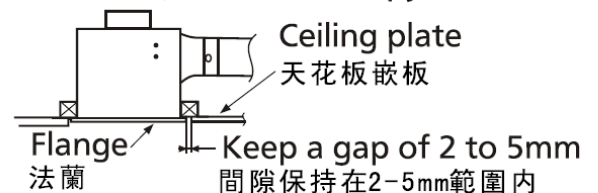
Slope the duct downward and guide it through the wall to the outside. Be sure to prevent rainwater from falling in the duct from its outlet. (The minimum size of the hole opening on the wall is: $\varnothing 116\text{mm}$)

風管水平向下傾斜地安裝到外側，其出口應設置在避免雨水進入的地方。(牆壁的最小開口尺寸為： $\varnothing 116\text{mm}$)。



② Install the ceiling plate. Note that the gap between the flange and the ceiling plate should be 2 to 5 mm.

安裝天花板嵌板，將法蘭與天花板嵌板間隙保持在2-5mm範圍內。



③ Install the pipe hood or vent cap (optional accessories) 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-MCX100P	FV-VCX100P



→ 4

4 Test Run and Louver Installation 試運轉和百葉窗的安裝

- ① When the power is turned on, check for all functions as follow:

在接通電源後，檢查一下是否發生以下各種異常現象：

Does the fan rotate correctly?

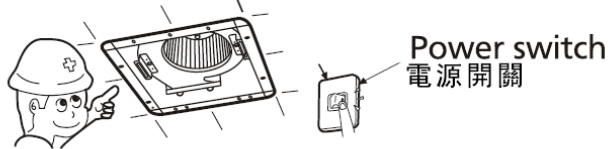
Does the fan rotate anti-clockwise?

Is there any abnormal sound or vibration?

風扇是否正常地旋轉？

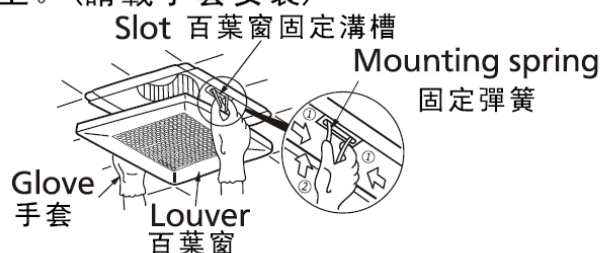
風扇是否正常地以逆時針旋轉？

是否發生不正常的聲音或震動？

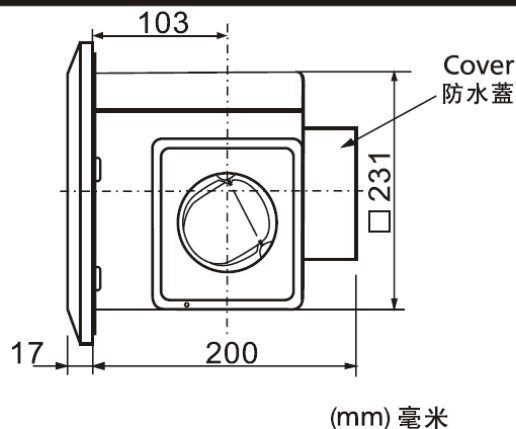
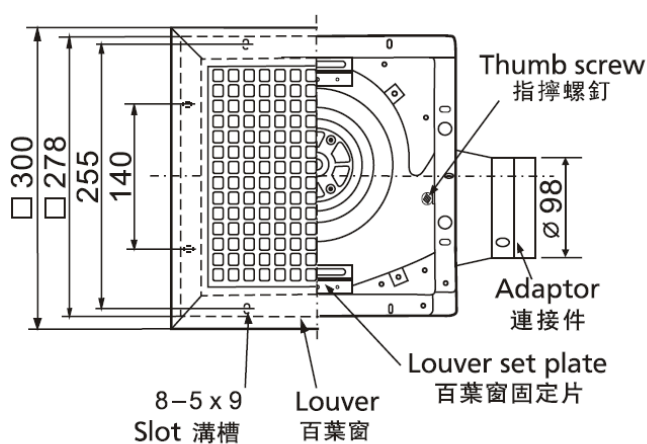


- ② Insert the mounting spring into the slots and mount the louver to the fan body. (Please wear gloves during installation.)

將固定彈簧裝入溝內，將百葉窗裝在機體上。(請戴手套安裝)



PART NAME AND DIMENSIONS 部件名稱和尺寸



(mm) 毫米

MAINTENANCE 日常使用及維修保養



Warning

警告



Do not disassemble the unit for reconstruction, otherwise, it may cause fire or electric shock.

禁止拆開本產品進行修理或改造，否則容易導致火災、觸電。

Repairing should be serviced by authorized service centre.

必須由專門的維修服務中心進行維修。



Do not spray or clean this product directly with water or other liquid, otherwise, a short circuit or an electric shock may occur.

禁止用水及其它液體直接噴射、清潔本產品，否則可能會引起短路或觸電。



Make sure that its power switch is set to OFF before you touch this product, otherwise, an electric shock may occur.

在接觸本產品前，必須確保連接本產品的電源開關處於斷開狀態，否則可能會觸電。



Do not switch this product on or off in case of gas leakage, otherwise, the electric spark may result in an explosion.

當發生煤氣洩漏時，禁止開、關本產品，否則可能會產生電火花而引起爆炸。



Warning

警告



This product must be properly and reliably grounded.

本產品必須適當地、可靠地接地。



Use this fan at the rated voltage and frequency indicated on the name plate.

禁止使用銘牌標示電壓以外的交流電。



This appliance 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 appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

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)維護和使用，除非在監護人的看護或指導之下使用。應確保兒童不要把本產品當作玩具玩。



Caution

注意



Routine maintenance is required every year. Disconnect the power source before you conduct any maintenance.

每年應該進行常規的維修保養。在維修工作之前，不得接通電源。



If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person in order to avoid a hazard.

如果電源線損壞，為了避免危險，必須由製造廠或其維修部或有資格的專業人員更換。



Do not use petrol, benzene, thinner or any other such chemicals for cleaning the ventilating fan.

切勿使用汽油、苯、稀釋劑或者其他諸如此類的化學品擦拭換氣扇。



Do not allow water to contact electrical part such as motors or switches.

切勿讓水進入馬達。



Do not immerse blade or other resin parts in hot water over 60 °C.

切勿把塑膠部品浸入高於60°C的水中。



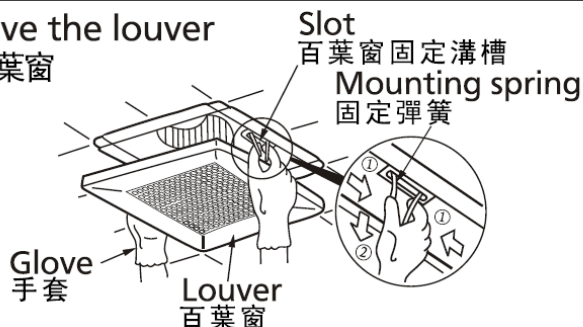
This product is applicable to living rooms, washrooms and other places where the humidity is not too high.

本產品用於起居室、衛生間等濕度不太高的場所。

How to Clean

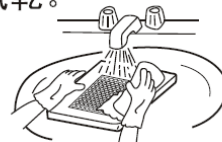
清洗產品

- ① Remove the louver
拆下百葉窗



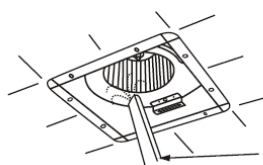
- ② Rinse the louver with water, and then dry it with a soft dry cloth or leave it air dry.

用水沖洗百葉窗，洗淨的百葉窗請用柔軟的乾布抹乾或風乾。



- ③ Clean the dirt off the fan body with a suction cleaner.

使用清潔器清除風扇主體上的污物。



Suction cleaner
清潔器

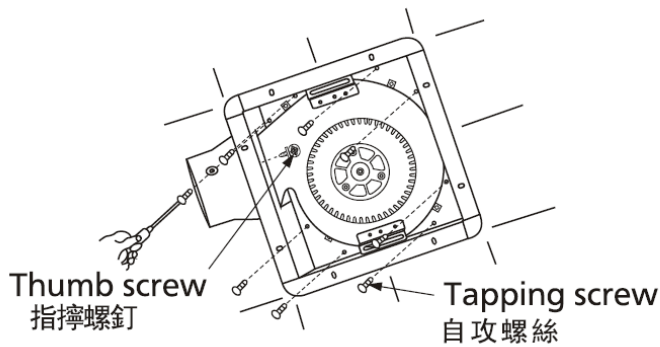
- ④ Wipe the dust off the fan body with a soft cloth moistened with kitchen detergent, and then clear it with a clean soft cloth. Finally, install the louver.

使用軟布沾上廚房用洗滌劑後擦掉風扇主體上的污物，再用乾淨軟布擦淨，重新裝上百葉窗。



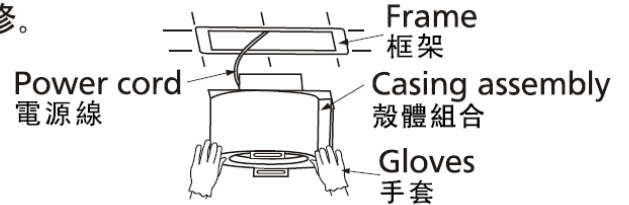
Repairing wiring 維修配線

- ① Remove louver tapping screws(8 pcs) and thumb screw (1 pcs).
拆下百葉窗、自攻螺絲(8枚)和指擰螺釘(1枚)。

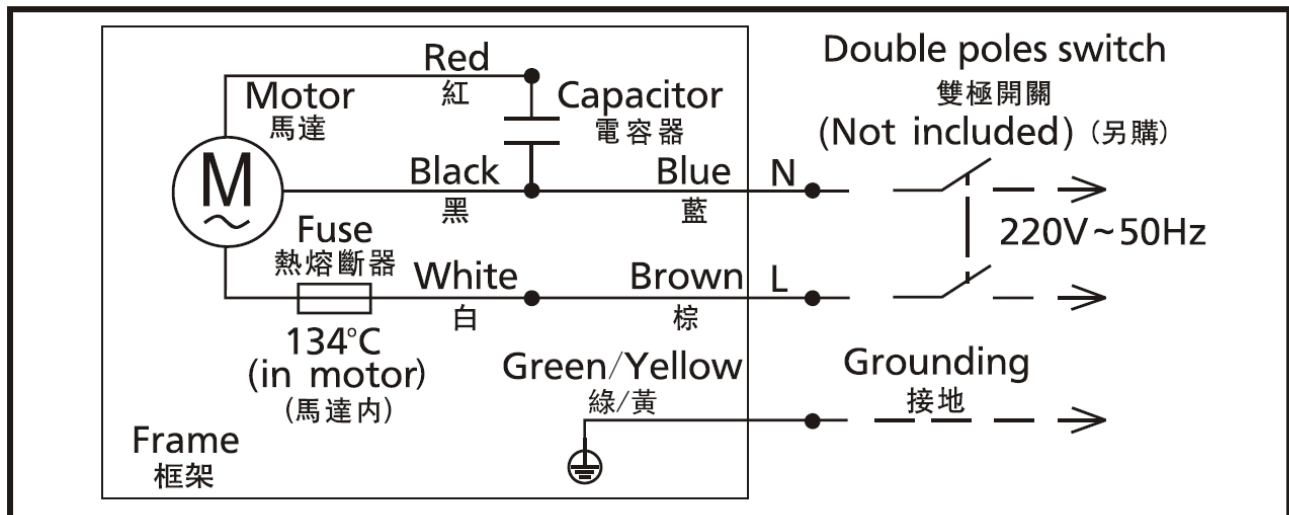


- ② Remove casing assembly, then routine maintenance, (No need remove frame) It must be maintained by manufacturer or its service agent, or a similarly qualified person.

拆下殼體組合，進行維修。(不需要拆下框架) 必須由製造廠或其維修部或有資格的專業人員維修。



WIRING DIAGRAM 電氣原理圖



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]	Weight 重量 [kg]
FV-24CMU1	220	50	11	100	26	3.8
FV-24CMD1	220	50	18	165	33	3.8
FV-24CMH1	220	50	25	210	38	3.8

Rated voltage/frequency : 220V~ 50Hz
額定電壓/頻率

Panasonic Corporation

<http://panasonic.net>