



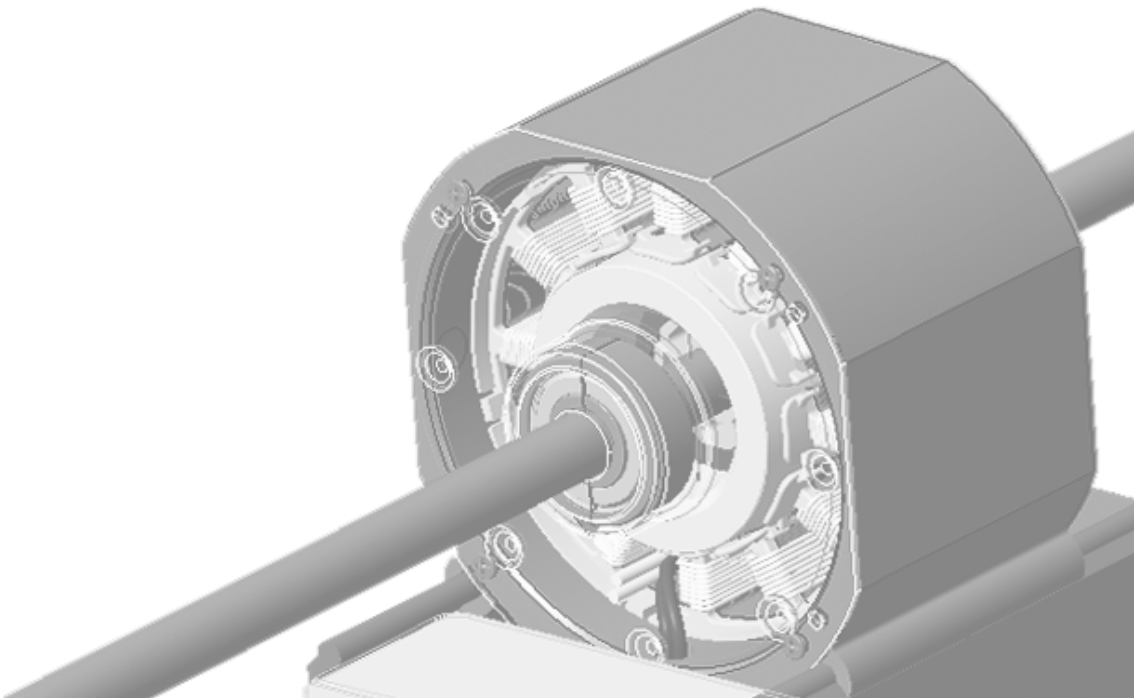
FP Series Motor Specification & Installation Guide

FP 變頻馬達規格與安裝說明

V1.0

1. Overview

FP series motor introduces EC (Electrical Commutated) and active PFC (Power Factor Correction) technologies to increase efficiency and reduce current harmonic, therefore it has lower noise, lower vibration and higher efficiency. Considering various power input, we also apply universal power design for customer to use it easily. FP series motor is mainly divided into two models. The first one is Economic which is designed for replacement majorly, it can perfectly replace old AC motors in most kind of Fan Coil Unit. The other model is Advance which is designed for IoT applications, and this has to be setup with other accessories from us. If you require this model, please contact us directly.



2. Specification

MODEL SPEC	FP12S-E (Economic)	FP12S-A (Advance)	FP12D-E (Economic)	FP12D-A (Advance)
Universal Input 100-240V AC	Y	Y	Y	Y
Active PFC	Y *1	Y *1	Y *1	Y *1
Input Power	<75Watts	<75Watts *2	<75Watts	<75Watts *2
Speed	300-1200RPM	300-1200RPM	300-1200RPM	300-1200RPM
Torque	0-10kgcm	0-10kgcm	0-10kgcm	0-10kgcm
Thermostat	AC 3-Step Thermostat	AC 3-Step Thermostat Optional Accessories *3	AC 3-Step Thermostat	AC 3-Step Thermostat Optional Accessories *3
Leaking Current	< 3mA	< 3mA	< 3mA	< 3mA
Protections	OCP / OTP	OCP / OTP / OPP	OCP / OTP	OCP / OTP / OPP
Safety	LVD/CE by TUV RH (EN60335-1:2012+A11+A13)			
EMC/EMI	EMC/CE CoC by TUV RH (EN61000-6-1: 2007, EN61000-6-3:2007+A1:2011 EN61000-3-2:2014, EN61000-3-3:2013)			
Total Current Harmonic	< 10% (@Max Speed)			

*1. PFC > 0.9 when Input power > 50Watts

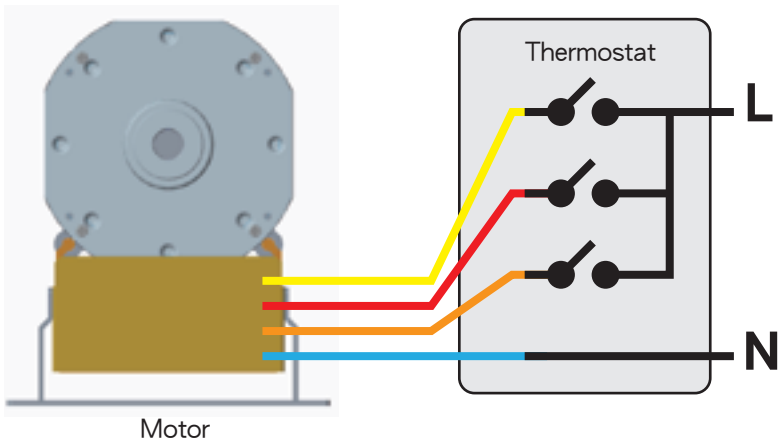
*2. Input Power < 1.0Watts when standby

*3. Model "Advance" can be applied with 3-Step Thermostat or IoT accessories provided by us.

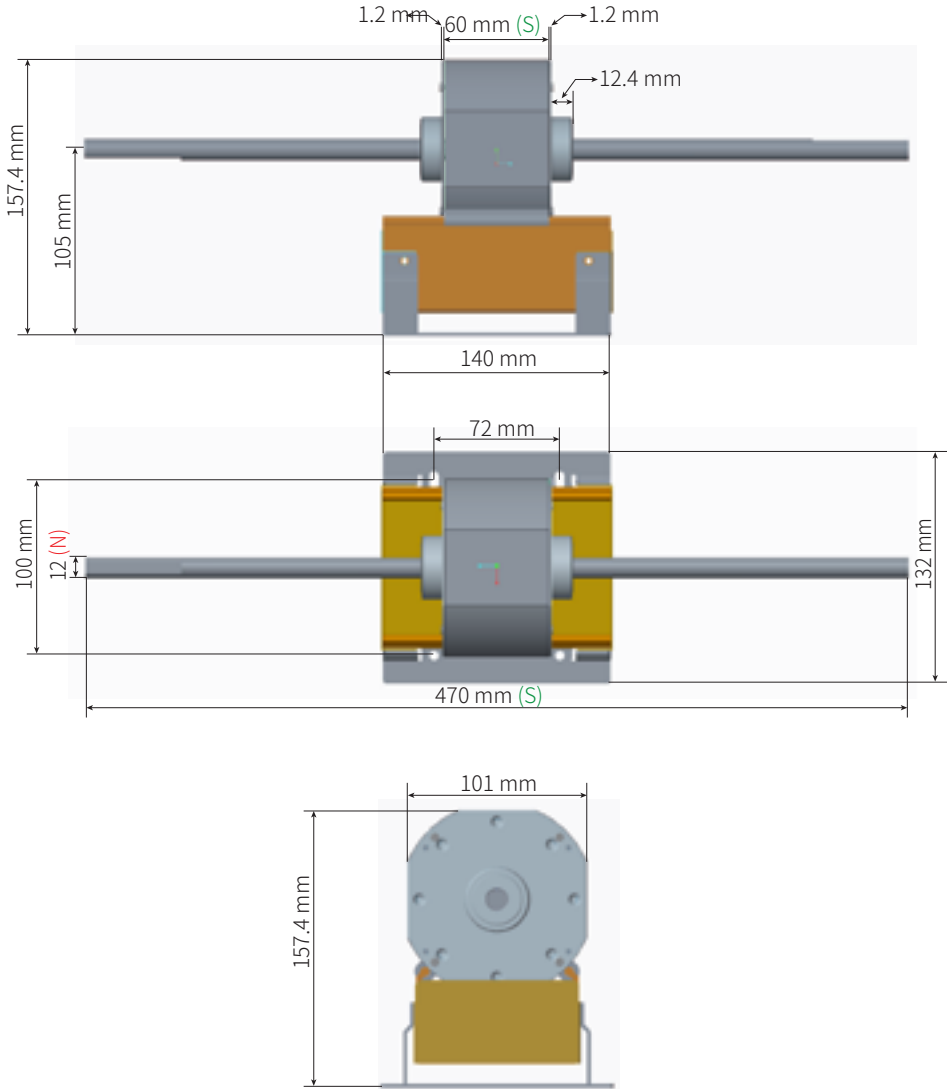
3. Installation Guide

1. Complete motor and fan coil installation before any wiring.
2. Make sure FCU is grounded well and connect grounding connector (FDD2-250) to motor.
3. Make sure power source is between 100~120VAC or 200~240VAC.
4. Check Line and Neutral status of power source is correct.
5. After confirming power status, connect the power connector (7007,4 pins) to power source. Refer to the figure below and instructions on the label of motor for more details.

* Installation must be processed by certified technicians.



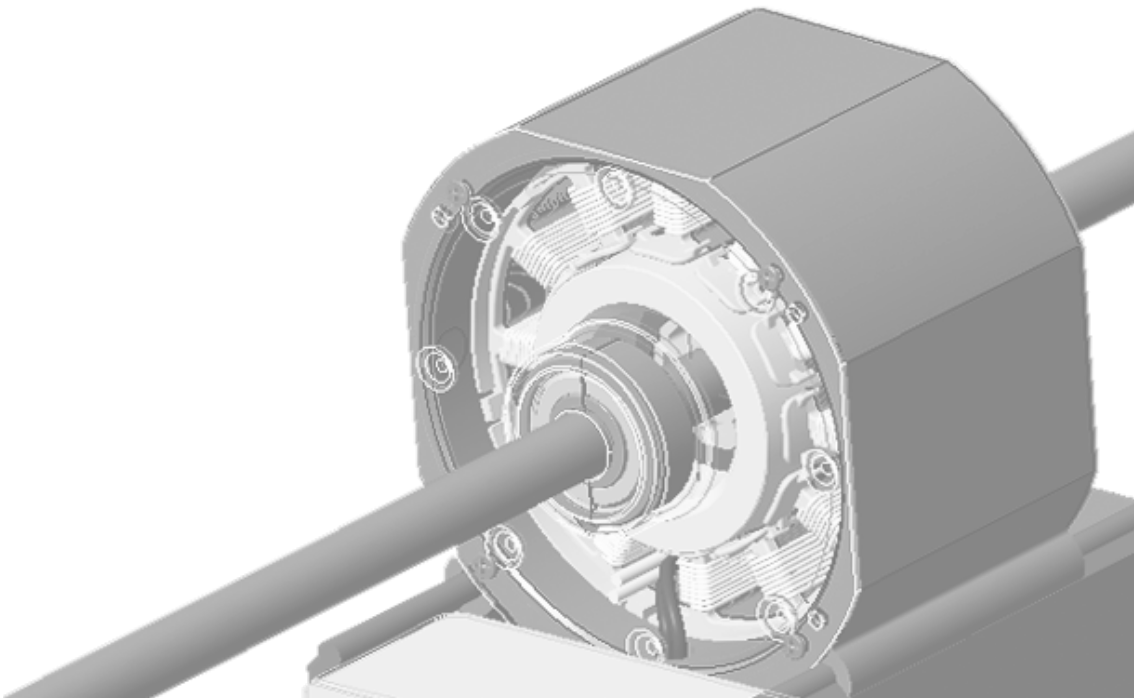
4. Dimensions



1. 摘要

FP系列變頻馬達應用了 EC 技術，超越 IE4 的效能標準。另外，它也導入主動式功率因數校正 (PFC) 技術，大幅降低電流諧波，因此達到低噪音、低震動的效果。

為了因應客戶不同的電源環境，我們也增加了全電壓設計，客戶可以更容易應用。此系列變頻馬達按照控制方式可各分為兩款，節能款與進階款，節能款主要使用在送風機馬達的汰舊換新，而進階款可搭配本公司其他軟硬體配件，進行即時監控，此部分需求請與我們聯繫。



2. FP系列規格表

MODEL SPEC	FP12S-E (Economic)	FP12S-A (Advance)	FP12D-E (Economic)	FP12D-A (Advance)
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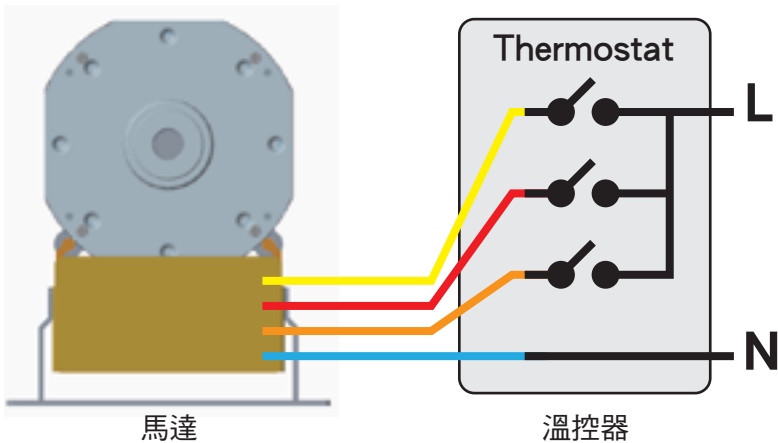
*1. 輸入功率大於 50Watts 時，功率因數大於 0.9

*2. 無線聯控模式下，待機功率小於1.0W；工作功率最高可達120W

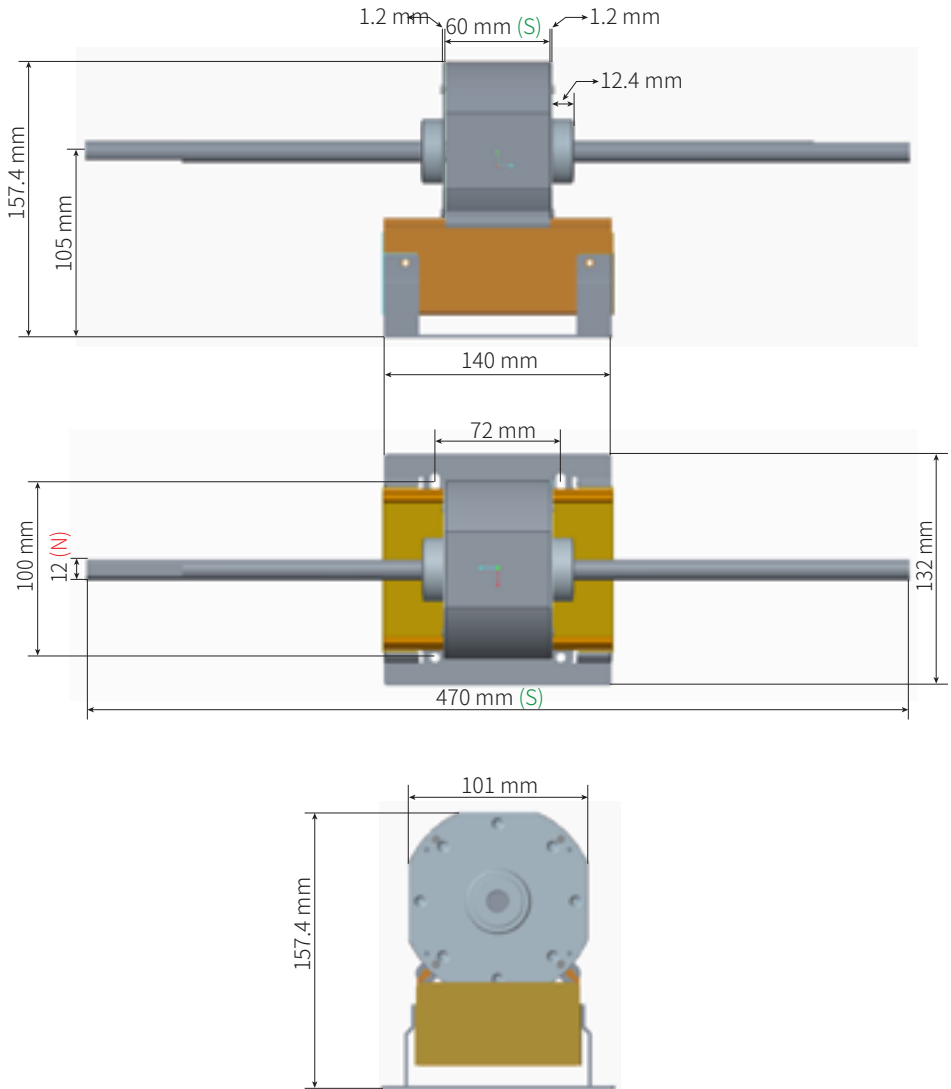
*3. 進階款可選 AC三速溫控器 或 無線聯控配件 作為控制器使用

3. 安裝說明與注意事項

1. 鎖上固定基座固定四顆螺絲，與鎖上葉輪。
2. 確定送風機完全接地，先把接地端子(FDD2-250)插上。
3. 量測電源在 100-120VAC 與 200-240VAC 的範圍。
4. 並確定單相電源的 Line (火線或L相)與 Neutral (中性線或N相)。
5. 依電工法規，中性線(N相)之對地(Earth)電壓必須小於L-N電壓的3%。
6. 確認電壓後，插上電源空中接頭(7007,4pin)並注意電源線配置，藍線必為直接接上N相電源線，黃線、棕線與橘線接上溫控器(Thermostat)之個別繼電器的輸出端，如下圖所示：
7. 當黃線之繼電器導通時，馬達運轉在高轉速；當棕線之繼電器導通時，馬達運轉在中轉速；當橘線之繼電器導通時，馬達運轉在低轉速。
8. 馬達安裝人員必須具有空調或電工專業證照，非專業人員不可拆裝馬達。



4. 馬達尺寸圖





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