

Hoya International Co., Ltd.

DC Motor Ceiling Fan

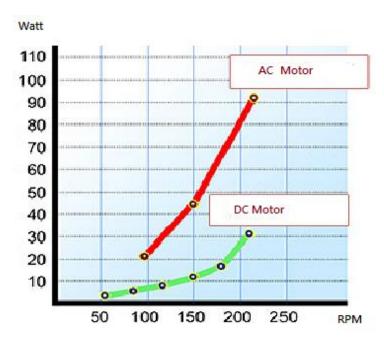
Save up to 65% with our New DC Motor ceiling fans

We have recently innovated new ceiling fans with brushless DC motor. The new motor makes our fans more efficient and energy-saving than traditional models.

Motor Design and Quality

- 1. **High Performance:** Ultra energy efficient DC motor consumes only 35% of energy of traditional motor. (Please see testing report)
- 2. **Precision balanced motor** and blades for wobble-free operation.
- 3. **More quiet** as no commutation and Low temperature rise after continuous usage.
- 4. **Full functional Remote Control:** 6 setting of fan speed with reverse and light control.
- 5. 25% lighter weight and hence more safe for hanging.
- 6. Materials and Finishes: All materials are Taiwan-origin, from silicon steel for motor, ball bearings, wire harness, to fasteners.
- 7. High density plating to ensure long-lasting shine and resistance to corrosion.

Here is the information for the DC brushless motor and AC Motor:



With our constant power control, the maximum power consumption is limited at 35W. The minimum power consumption at lowest fan speed is similar to a LED light bulb.

Advanced BLDC Motor for Ceiling Fan







Specifications

Motor Diameter: 125 mm (125S) / 165mm(165L)

○ Voltage Range: 120V ± 10% @ 110V model

220V ± 10% @ 220V model

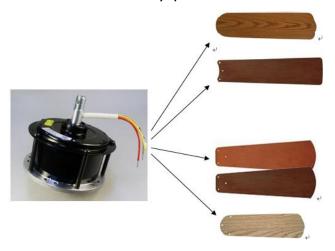
- Max. power consumption less than 35W.
- Oconstant power control at 35W & over load protection.
- Quietness & flexibility of blade installation:

Model 125S fits for $42^{"}\sim~56"$ blades.

Model 165L fits for $52"\sim72"$ blades.

- 304 MHz frequency remote control system for 110V model
 434 MHz frequency remote control system for 220V model .
- 6-speed selection with forward & Reverse rotation.
- O Light On/Off, dimmer, & Fan reverse function control.
- Flexibility of blade selection

Our BLDC motorcan match various blades. Customers can choose the blade form they prefer without motor limitation.



Testing Report

Here is the testing report of AC motor and DC motor. You can tell from the data below to know that how energy-saving our fan is. DC motor consumes only 30w while RPM is 201 at first speed and AC motor consumes 87w while RPM is 210 at first speed. As you can see High efficiency DC fan helps you save up to 65% of electricity.

| AC Motor (Three Speeds) | | | | | | | | |
|---|-------|------|-------|-------|--|--|--|--|
| Fan Size: 56 inch | | | | | | | | |
| Input voltage 220V, 50Hz Pitch 13 | Speed | HI | MI | LO | | | | |
| | Amp | 0.37 | 0.285 | 0.195 | | | | |
| | Watt | 87 | 51 | 26 | | | | |
| | RPM | 210 | 153 | 96 | | | | |

| DC Motor (Six Speeds) | | | | | | | |
|---|-------|------|------|-----|------|------|------|
| Fan Size: 56 inch | | | | | | | |
| Input voltage 220V, 50Hz Pitch 13 | Speed | VI | V | IV | III | II | I |
| | Amp | 0.17 | 0.13 | 0.1 | 0.08 | 0.07 | 0.07 |
| | Watt | 30 | 18 | 11 | 8 | 5 | 4 |
| | RPM | 201 | 170 | 141 | 110 | 82 | 52 |

For example:

Under the highest speed operate a kilowatt hour can run for 33.3 hours In Taiwan, a kilowatt hour costs NT\$2.1 Therefore, 15.8 hours cost NT\$1

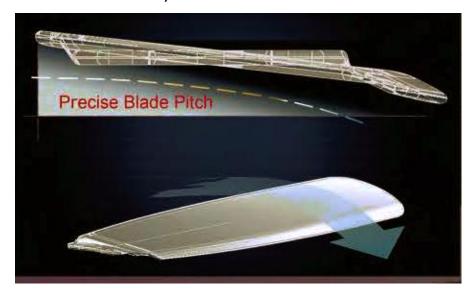
| Our DC Motor | Power Consumption | A kilowatt hour | | | |
|-------------------------------|----------------------|---------------------------|--|--|--|
| Under highest speed operating | 30W | 1000W ÷ 30W = 33.3(Hr) | | | |
| Under lowest speed operating | 4W | 1000W ÷ 4W = 250(Hr) | | | |

DC motor with full function remote control, it's convenient to use.



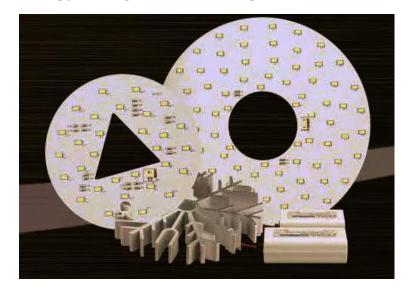
3D Curved Blades

Innovative 3D designed, using new curve technology enhances wind. It can let you install it more quickly and safely. Furthermore, you can clean it more easily.



LED Lighting Design

Energy saving and make long life.



You can select ceiling fan size according to house's square footage. Following table is for reference.

| Dia. | Motor | Square | RPM / min | | | Watt / (W) | | | | Gross |
|------|-----------|--------|-----------|--------|-----|------------|--------|-----|------|-------------|
| | | | High | Medium | Low | High | Medium | Low | cuft | weight (kg) |
| 60″ | 188×25m/m | 6以上 | 210 | 150 | 100 | 105 | 46 | 23 | 2.3 | 13 |
| 56″ | 188×20m/m | 5-6 | 230 | 150 | 98 | 100 | 45 | 21 | 1.9 | 11 |
| 52″ | 188×16m/m | 4-5 | 226 | 151 | 98 | 95 | 44 | 22 | 1.64 | 9 |
| 52″ | 153×17m/m | 3-4 | 196 | 148 | 96 | 78 | 44 | 20 | 1.4 | 7 |
| 42″ | 153×12m/m | 2-3 | 230 | 172 | 98 | 49 | 26 | 11 | 1.4 | 6 |