



DC Brushless Motor for Ice Water System Fan Coil Unit (FCU)

Replacing the FCU fan with a DC EC motor **saves over 40% in energy immediately,** visible savings!

EC (Electronically Commutated) is currently the most efficient motor drive technology, also known as "DC Brushless Motor (BLDC)."

Protect the Earth.

 Advocate the use of renewable energy.

Direct replacement of the original AC motor, the best choice for energy-saving upgrades!

1. Three-speed input signal LED indicator for visibility.
2. Static pressure adjustable in six levels.



※Please scan here for instructions.

Can be integrated with our IQ-500 series products for Direct Digital Control (DDC) networking.



Shock-resistant design.



Static pressure adjustable in six levels.

Dual-axis DC brushless motor

MODEL : FCU101-12311



Single-axis DC brushless motor

MODEL : FCU101-60311

- Operating environment temperature : -20~60°C
- Storage environment temperature : -25~80°C

Four main features

- ▶ **The simplest way to upgrade.** Compatible with AC motors for direct replacement; most suitable for maintenance and upgrades.
- ▶ **Reuse existing temperature control systems.** Original AC thermostat can be retained; no need to change the existing control system.
- ▶ **Three speeds to meet high and low static pressure needs.** Three-speed airflow (six adjustable speeds to meet high and low static pressure).
- ▶ **Made in Taiwan, a Taiwanese pride!** EC motor saves over 40% in energy and is more efficient in low temperatures.

Control methods ▶▶

- Speed switching : three speed levels for control.
- Signal input pin positions :
 - (1) H_SPEED to COM
 - (2) M_SPEED to COM
 - (3) L_SPEED to COM
- Input signal format : AC90~264V
- Input signal frequency range : 50~63Hz

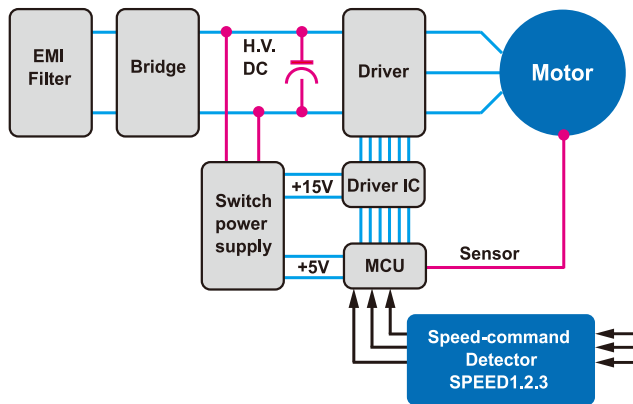
Three-speed RPM gauge			
Speed selection Static pressure mode	H	M	L
RPM	1050 (800~1150)	800 (600~950)	420 (300~700)
Airflow variation	30% - 115%		

Product specifications ▶▶

- Input characteristics :
 - (1) Dual-axis - BAA02043 : 120W/220V or 110V
 - (2) Single-axis - BAA02045 : 60W / 220V or 110V
- Motor shaft height : 105mm
- The motor is sensorless and has overcurrent protection; it has a Class B insulation rating.
- The motor drive technology uses sinusoidal wave control, with a drive frequency of 20kHz.
- Applicable range : This product includes a driver and a DC brushless motor, suitable for DC motor applications.

Item	Minimum	Nominal	Maximum	Unit
Input voltage	198	220	264	VAC
Enter frequency	50~63			Hz
Input Current	Dual-axis<2 Single-axis<1			A
input power	Dual-axis<160 Single-axis<90			w
scope of treaty	350~1050			r.p.m
Operating temperature	-20~50			°C
Dielectric strength	DC500V/100MΩ↑			MΩ

System architecture diagram ▶▶



- Fan wheel diameter of the FCU matches the motor shaft height (H) :
 - φ160 mm=H105 mm (Taiwan routine)
 - φ150 mm=H100 mm
 - φ140 mm=H95 mm
 - φ130 mm=H90 mm

Product wiring diagram ▶▶

