EC Motor

Customized solutions for livestock farming, industrial ventilation, air purification, and other industries

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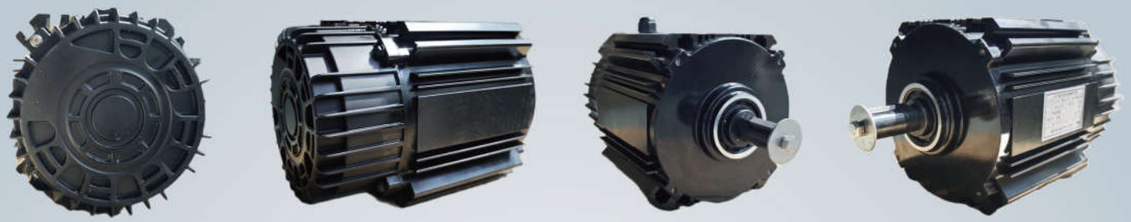
HAINA RUIKE

Efficient ◎ Reliable ◎ Intelligent



An EC motor (Electronically Commutated Motor), also known as an electronically commutated motor, is a high-performance brushless DC motor (BLDC). It uses a built-in intelligent electronic control module (ECM) to convert AC power to DC and precisely control the motor's operation.

Compared to traditional AC motors (such as AC induction motors), the core difference of an EC motor is that it uses external AC input, internal DC operation, and electronic commutation (changing the direction of current to drive the motor's rotation) rather than traditional mechanical carbon brush commutation.

■Core features and advantages

Features	Traditional AC motor	EC motor
Control	Simple on/off or external variable frequency drive (VFD) speed control	Built-in VFD, stepless speed regulation
Energy efficiency	Low, especially with a sharp drop at part load	Very high, with high efficiency at part load
Speed control	Complex speed regulation with a narrow range	Wide, smooth, stepless speed regulation
Communications and monitoring	Not available	Supports 10-0V, RS485, and other communication control options
Heat and noise	Higher	Lower
Initial cost	Lower	Higher

EC Technology

Intelligent power saving and precise ventilation

Model	Voltage	Frequency	Power	Speed	Current	Insulation Level	Protection Level
HNRK160-0.5-380T-1500	380VAC	50/60Hz	0.5KW	200-1500PRM	0.98A	F	IP66
HNRK160-0.75-380T-1200	380VAC	50/60Hz	0.75KW	200-1150PRM	1.52A	F	IP66
HNRK160-1.1-380T-800	380VAC	50/60Hz	1.1KW	200-750PRM	2.18A	F	IP66
HNRK160-1.5-380T-650	380VAC	50/60Hz	1.5KW	200-600PRM	2.90A	F	IP66
HNRK160-2.2-380T-650	380VAC	50/60Hz	2.2KW	200-600PRM	4.32A	F	IP66
HNRK160-3.0-380T-650	380VAC	50/60Hz	3.0KW	200-600PRM	5.90A	F	IP66

*Power, speed, voltage and other specifications can be customized according to requirements

Hana Ruike EC motors are tailor-made for modern large-scale farming.
Smart EC fans reshape the indoor environment and set a new standard for efficient ventilation.

1. Extreme energy savings, significantly reducing farming costs.
* Compared to traditional fans, these fans save up to 40%-60% energy. Utilizing advanced brushless DC technology, they consume extremely low energy.
* Infinitely variable speed control and on-demand ventilation eliminate the energy waste of frequent starts and stops, ensuring every kilowatt-hour is used for precise ventilation and significantly reducing farming costs.

2. Precise ventilation, protecting livestock and poultry health.
* Intelligent ventilation volume matching: 0-100% stepless, smooth speed regulation, precisely linked to temperature, humidity, ammonia (NH3), and carbon dioxide (CO2) sensors.
* Eliminates environmental stress: Eliminates the sudden temperature fluctuations caused by the "full on/off" operation of traditional fans, effectively preventing respiratory diseases in animals and ensuring a healthy and uniform flock.

3. Intelligent Quietness Improves Production Welfare
* Significantly reduces operating noise, creating a quiet, low-stress environment for livestock and poultry, which helps improve production performance (e.g., egg production rate and weight gain).
* Creates a more comfortable working environment for you.

4. Robust and Durable, Built to withstand harsh environments
* IP66 high protection rating, dustproof and waterproof, suitable for the complex high-temperature and high-humidity environments of livestock farms.
* Brushless design ensures a longer lifespan and is maintenance-free, fundamentally eliminating the risk of ventilation interruptions caused by motor failure.

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