

# Electronically Commutated Motor for HVAC

High-efficiency motors designed for fan coil units and blowers, featuring variable speed and long lifetime. Compact design ensures simple replacement in VAV, FCU, HRU, and AHU applications.



## Overview

### High-Efficiency ECM Motor

This Electronically Commutated Motor (ECM) is engineered for high-efficiency operation in HVAC systems, including fan coil units, blowers, and air handling units. It features advanced variable speed control options and robust protection mechanisms to ensure long service life and reduced operational costs. Designed with a compact form factor, it offers simple replacement and flexible installation with single or double shaft configurations.

## Technical Specifications

|                          |               |
|--------------------------|---------------|
| Efficiency               | 80 %          |
| Controller Input Voltage | 220VAC +/-10% |
| Rated Speed              | 1200 RPM      |
| Variable Speed Range     | 0-1800 RPM    |

## Features & Protection

### Safety Features

- 1.5 times over-load protection
- Over/under current protection
- Over/under voltage protection
- Blocking protection

### Speed Control Options

- 0-10VDC
- PWM
- 5-speed options
- RS485 feedback signal

|                |         |
|----------------|---------|
| Certifications | CE, CCC |
|----------------|---------|

## Performance Data

| N | Model                  | Controller Input Voltage | Rated Output (W) | Rated Speed (RPM) | Variable Speed (RPM) | Rated Torque (Nm) | Efficiency | Shaft (s) | L1 (mm) | L2 (mm) | D (mm)  |
|---|------------------------|--------------------------|------------------|-------------------|----------------------|-------------------|------------|-----------|---------|---------|---------|
| 1 | ECM01120NB112020003    | 220VAC+/-10%             | 200              | 1200              | 0-1800               | 1.6               | 80%        | single    | 80      | 223     | 12.7/15 |
| 2 | ECM01120NB112025003    | 220VAC+/-10%             | 250              | 1200              | 0-1800               | 2.0               | 80%        | single    | 90      | 215     | 12.7/15 |
| 3 | ECM01120NB112032003    | 220VAC+/-10%             | 320              | 1200              | 0-1800               | 2.5               | 80%        | single    | 90      | 215     | 12.7/15 |
| 4 | ECM01120NB112020003/DS | 220VAC+/-10%             | 200              | 1200              | 0-1800               | 1.6               | 80%        | double    | 90      | 216     | 12.7/15 |
| 5 | ECM01120NB112025003/DS | 220VAC+/-10%             | 250              | 1200              | 0-1800               | 2.0               | 80%        | double    | 90      | 212     | 12.7/15 |
| 6 | ECM01120NB112032003/DS | 220VAC+/-10%             | 320              | 1200              | 0-1800               | 2.5               | 80%        | double    | 90      | 212     | 12.7/15 |

Technical performance data for the ECM120 series, detailing power output and shaft configurations.

## Model Specifications

| Model                  | Power (W) | Torque (Nm) | Shaft Type |
|------------------------|-----------|-------------|------------|
| ECM01120NB112020003    | 200       | 1.6         | Single     |
| ECM01120NB112025003    | 250       | 2           | Single     |
| ECM01120NB112032003    | 320       | 2.5         | Single     |
| ECM01120NB112020003/DS | 200       | 1.6         | Double     |
| ECM01120NB112025003/DS | 250       | 2           | Double     |
| ECM01120NB112032003/DS | 320       | 2.5         | Double     |