

PERFECTSPEED® Advanced EC Motor

High Efficiency & Precise
Airflow Control for Air Moving
Applications



- Wide array of voltages and configurations to meet the needs of most air-moving applications
- Meets end-user demands for a high efficiency, fully communicating ECM technology
- Unrivaled CFM control provides constant airflow across a wide range of operating parameters
- State of the art design minimizes noise throughout all modes of operation
- Robust, proven ECM technology with a broad installation base
- Nidec's close application support brings the experience required to implement EC technology



Product Overview and Options

The PERFECTSPEED® EC Motor system is the solution to meet the increasing demand for electrically commutated motors (ECM) in modern HAC and ventilation systems. With a wide range of control options, voltages and mechanical configurations, the PerfectSpeed motor offers the high efficiency and precise airflow control needed in a broad array of air-moving applications, all backed by Nidec's extensive ECM experience and close application support.

Key Features and Benefits

- Three efficiency tiers offered: Optimized, Standard Efficiency and High Efficiency
- Robust, integrated electronics with advanced thermal and overload protection
- Full communicating control via the ClimateTalk™ communication protocol
- Range of analog inputs and controls, including PWM and 0-10V
- Advanced programming software reduces development and testing
- Can offer 115/208-230/277 all in a single SKU

Product Specifications

Horsepower: 1/3, 1/2, 3/4, 1 HP

Voltage: 1Ø, 115/208-230 or 115/208-230/277 Volts

Speeds: 300 - 2800 RPM

Inputs: 2 Way Serial Communication & PWM - also 0-10V with User Interface

Operation Modes: Constant CFM, Constant Torque, Constant Speed

Frame: NEMA®† 48

Enclosure: Open Air Over (OAO)

Efficiency: Up to 85%

Mounting: Belly-band, Stud mount, Rigid base, & Flex Mount



Configurations and Accessories



PERFECTSPEED® User Interface

Provides 0-10V, on-board or remote speed control of the PerfectSpeed motor. Bright LED display provides torque, speed or CFM feedback. User Interface can be mounted directly to the motor control or remotely, ensuring easy access.



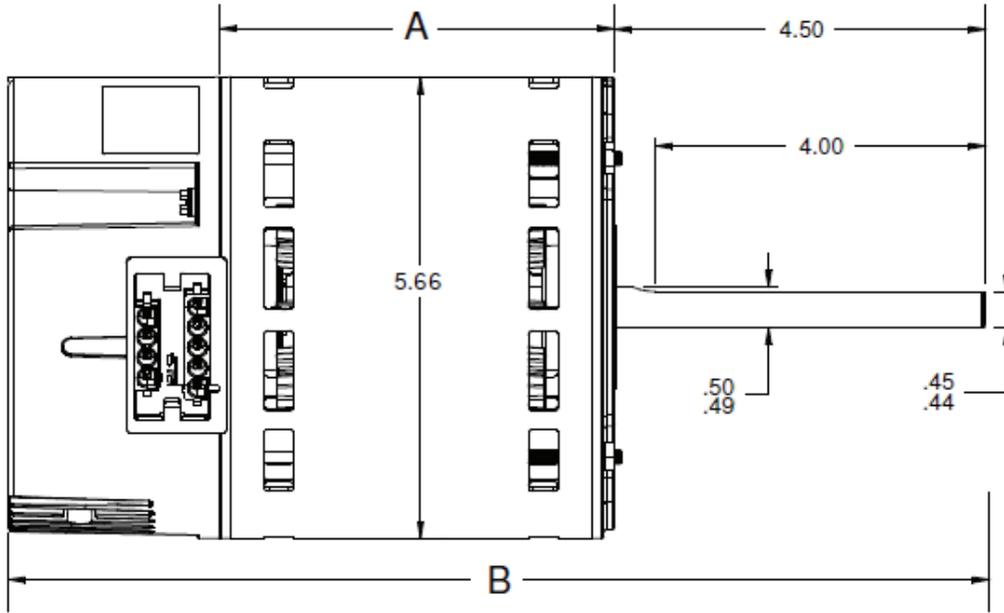
16X4W Interface Module

Enables integration of the PerfectSpeed motor with legacy 24V, 16pin system controls. Communicates with the PerfectSpeed motor, translating 24V analog command signals into digital inputs for the motor.



Dual Shaft/Remote Mounted Electronics

Motor electronics can be mounted remotely, suitable for applications requiring dual shaft or in which there is limited space around the motor.



| Standard Efficient | | |
|--------------------|--------|--------|
| HP | Dim. A | Dim. B |
| 1 | 4.38 | 11.85 |
| 3/4 | 4.00 | 10.98 |
| 1/2 | 3.63 | 10.60 |
| 1/3 | 3.25 | 10.23 |

For additional information, please contact your Nidec representative.

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www.usmotors.com
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Nidec

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