

Agri-Fusion™

All-In-One Direct Drive System Solution,
Combining Performance and Quality

Specifications

Horsepower: 3 HP

Poles: 10 (600 RPM)

Frame: Aluminum 180T

Enclosure: TEAO

Efficiency Level: Super Premium, IE4 or better

Electrical Design: Brushless, Permanent Magnet

Drive: Integrated or Separate Drive

Motor Type: BPM (ferrite)

Ingress Protection: Motor IP55, Drive IP56

Mounting: C-face / footed / footless

Weight: 67/12 lbs (motor/drive)

Power: 2.9 HP

Torque: 31.65 Nm @675 RPM

Speed: 400-1100 RPM

Input: 230V (1Φ & 3Φ), 50/60Hz

Power Factor: 0.62

Bearings: 6206/6205 DE/ODE



Product Overview and Features

Nidec Motor Corporation's Agri-Fusion™ combines a variable speed motor and drive from the factory which proves to be a perfectly synchronized and easy to install solution. The 3 HP BPM direct drive motor can provide customers with less maintenance costs, higher reliability, and better efficiency for ventilation-based applications. Customers can find savings of 30-50% over NEMA® Premium Efficient models. As part of the ACCU-Series family of integrated solutions, Agri-Fusion gives you a single point of contact for support and service with matching warranties.

Agri-Fusion 2HP Specifications	
Horsepower:	2 HP
Frame:	Rolled steel 56 frame
Enclosure:	Total enclosed, air over (TEAO)
Electrical Design:	Brushless, Permanent Magnet
Speed:	400-1,100 RPM
Input:	230/460V

Product Features

- 400-1, 100 RPM range
- Brushless permanent magnet motor, ideal for high torque starts
- Totally enclosed air over enclosure
- IP45 motor, IP56 drive (IP55 motor available)
- Footed, C-Face Footed or C-Face Footless mounting
- 6206/6205 (DE/ODE) double shielded ball bearings
- KB Electronics, a Nidec brand, drive with advanced control software
 - Precise speed control
 - Smooth starting, easier on mountings and mechanical features
 - Under/over voltage protection
 - Thermal overload protection
 - Simple setup and Trimpot adjustments (min/max speed, acceleration/deceleration, and current limit)

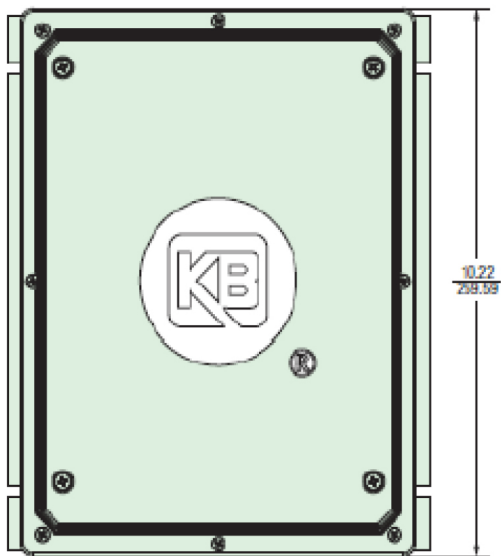
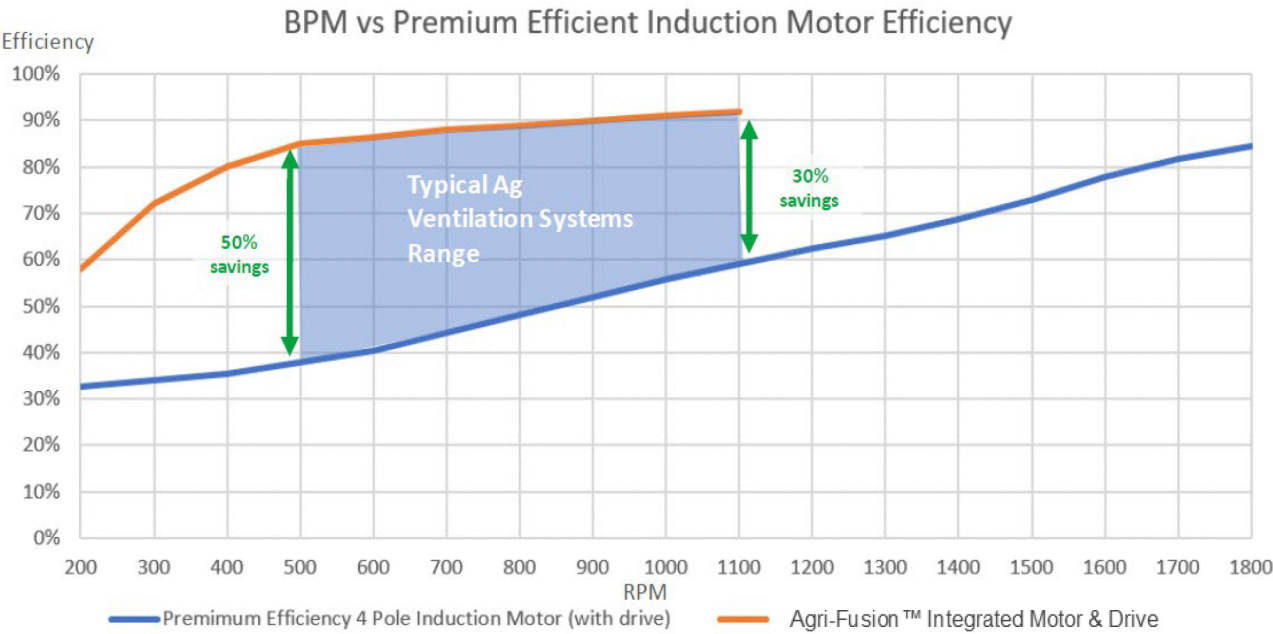
Agri-Fusion Advantages

- Robust, efficient BPM motor designed to handle large diameter fans
- Direct Drive requires less maintenance allowing for better reliability
- Up to 95% motor efficiency and pp to 92% motor & Drive System
- Variable speed drive allows for more efficient environmental control
- Heavy Duty Bearings supports heavy, large diameter fans

Nidec

Agri-Fusion All-In-One Direct Drive Solution Efficiency

The Agri-Fusion’s robust direct-drive motor eliminates the need for wear parts including a belt and pulley, which equates to less maintenance and more efficient operation. When compared to a NEMA® Premium Efficient motor you can see savings of 30-50% when in the ideal RPM range for ventilation applications.



Ratings
230 VAC 1 & 3-Phase Input 230 VAC 3-Phase Output

Model No.	Ratings		Net Weight	
	HP,(kW)	Amps	Lbs.	kg
KBVF-27E / KBVF-27EF	2,(1.5)	6.7	11.1	5
KBVF-29E / KBVF-29EF	3,(2.25)	9.0	11.1	5



*"E" suffix designates standard NEMA 4/IP56 enclosure. "F" suffix designates optional AC Live RFI (EM) filter.

Specifications

Maximum Load (% of Current Overload for 2 Minutes)	150
Carrier, Switching Frequency (kHz)	16, 8
Output Frequency Resolution (Hz)	0.06
Minimum Output Frequency to Motor (Hz)	0.3
Acceleration Time (Seconds)	0.3 - 20
Deceleration Time (Seconds)	0.3 - 20
Speed Range (Ratio)	60:1
Speed Regulation (30:1 Speed Range, 0-Full Load) (% Base Speed)	2.5
Stalled Motor Trip Time (Seconds)	6
Braking	Regenerative*
Operating Temperature Range (°C/°F)	0-50/32-122
Storage Temperature (°C/°F)	-25-+86/-13-+185

For additional information, please contact your Nidec Motor Corporation representative

† All marks shown within this document are properties of their respective owners.
For more information about the U.S. MOTORS brand, visit www.usmotors.com.
Nidec Motor Corporation, © 2024; All Rights Reserved. U.S. MOTORS® is a registered trademark of Nidec Motor Corporation.
Nidec Motor Corporation trademarks followed by the ® symbol are registered with the U.S. Patent and Trademark Office.



8050 W. Florissant Avenue | St. Louis, MO 63136
Phone: 888-637-7333