

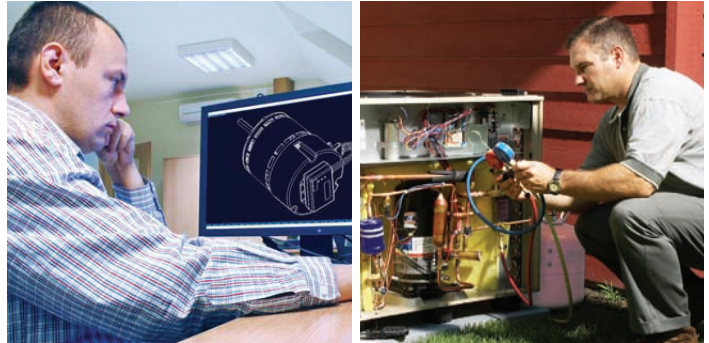
Variable Speed Motors

HVACR ECM Motors



Nidec Motor Corporation has developed an extensive line of technologically advanced variable speed electronically controlled motors (ECM) designed to complement your most advanced HVAC system.

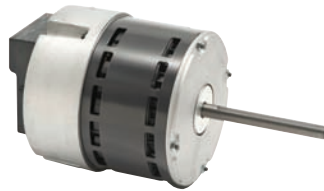
These motors satisfy the ever-growing consumer demand for energy efficiency, comfort and reliability in today's premium HVAC systems.



Product Overview and Features

PerfectSpeed® Communicating Variable Speed Blower Motor

- Two-way communication
- Easy setup
- Precise airflow control
- Advanced diagnostics
- Simplified connections



16x4W 16 Pin ECM Variable Speed Motor

- Easy integration
- Analog to digital
- Flexible installation – remote mount or on the motor
- Flexible programming and diagnostics – production or offline



RESCUE EcoTech® Retrofit ECM Blower Motor

- Patented line voltage sensing technology
- Drop-in installation
- Easy ECM upgrade



SelecTech® Indoor Discrete Speed Motor

- High efficiency for air handlers or gas furnaces
- 5 programmable 24-volt speed taps
- Constant torque with programmable off delays



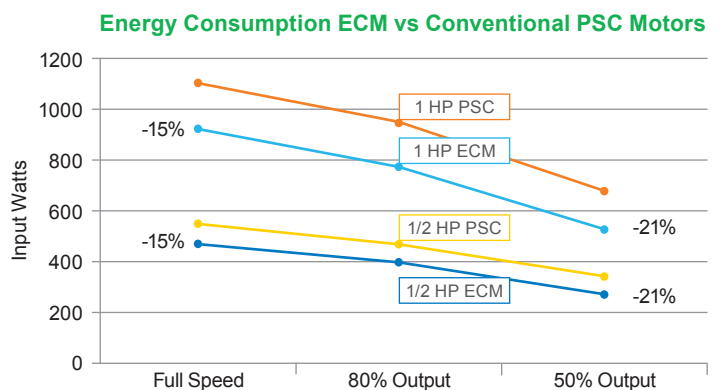
SelecTech® Outdoor Discrete Speed Motor

- Designed for high SEER air conditioners and heat pumps
- 2 programmable 24-volt speed taps with constant speed operation
- Totally enclosed, air over for outdoor applications



Energy Efficiency

Nidec Motors consume at least 20% less energy than PSC Motors.



Our Variable Speed Technology Drives HVAC System Success...

Precise Airflow Control

- Sensorless sine wave control
- Advanced software for output control

Quiet, Smooth Operation

- Quieter than other ECM motors at low-speed
- Ultra-smooth shaft cogging

Reliability your Customers Demand

- Extensive design validation
- Life testing
- Withstands lightning surges up to 6,000 volts

Faster Set-Up, Faster to Market

- Software helps you quickly develop blower coefficients
- Software generates torque profiles for SelecTech and EcoTech

For more information visit www.usmotors.com

Variable Speed Motors

	ECM Technology	PerfectSpeed®	16x4	SelecTech® Indoor	RESCUE EcoTech®	SelecTech® Outdoor	
	Control Method	2-Way Serial Comm., Pulse Width Modulation	16 Pin 24V PWM	Five 24V Signals	Line Voltage Sensing	Two 24V Signals or PWM	
Electronic Control and Software	Constant CFM	✓	✓				
	Constant Torque	✓	✓	✓	✓		
	Constant Speed	✓	✓	✓		✓	
	Programmable Air Flow	✓	✓	✓	✓	✓	
	Soft Start / Soft Stop	✓ / ✓	✓ / ✓	✓ / ✓	✓ / ✓	✓ / Start Only	✓ / ✓
	On Delay / Off Delay	✓ / ✓	✓ / ✓	✓ / ✓	✓ / Off Only	✓ / On Only	
	Diagnostics	✓					
Rating Information	Horsepower	1, 3/4, 1/2, 1/3	1, 3/4, 1/2, 1/3	1, 3/4, 1/2, 1/3	1, 3/4, 1/2, 1/3	1/3	
	Voltage	115/208-230, 277V	115/208-230, 277V	115/208-230, 277V	115/208-230	208-230	
	Speed	1750-300, 1200-300	1750-300, 1200-300	1200-600	1200-600	1200-300	
	Efficiency	Up to 82%	Up to 82%	Up to 82%	Up to 82%	Up to 75%	
	Frequency	60 / 50	60 / 50	60 / 50	60 / 50	60 / 50	
	Class B Insulation	✓	✓	✓	✓	✓	
	Ambient Rating	60°C / 40°C	60°	60°	40°	60°	
	NEMA Frame Size	48	48	48	48	48	
Agency Approvals	CE / U.L. / C.S.A.	CE / U.L. / C.S.A.	U.L. / C.S.A.	U.L. / C.S.A.	U.L. / C.S.A.		
Mechanicals and Protection	Motor Enclosure	Open	Open	Open	Open	Totally Enclosed	
	Bearing System	Ball	Ball	Ball	Ball	Ball	
	Fully Potted Electronics	✓		✓	✓	✓	
	Electrically Protected Motor and Control	✓	✓	✓	✓	✓	
	Self Monitoring Software	✓	✓	✓	✓	✓	
	Lightning Surge Protection	6,000 Volts	6,000 Volts	6,000 Volts	6,000 Volts	6,000 Volts	



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www.usmotors.com

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