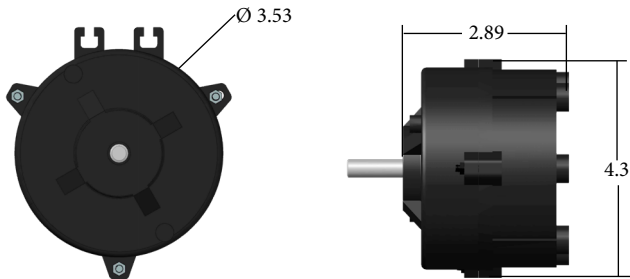




## SMALL ECM

### Dimensions



### Constant and variable speed applications

Our motors have the ability to obtain high efficiencies at low power outputs. This type of motors are a cost effective solution of direct replacements for PSC and Shaded Pole motors.

The typical applications for these types of motors are on refrigerators / condensation systems for air movement. We offer several designs to be able to fulfill every requirement of your applications.

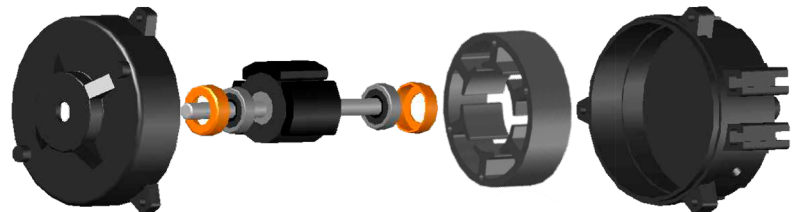
### Work Environment

Our motor can operate satisfactorily in ambient temperatures of  $-20^{\circ}\text{C}$  to  $40^{\circ}\text{C}$

The totally enclosed fan-cooled motor design also helps keep the motor free of contamination. It employs a fan to blow outside over the motor to stay cool, rather than allowing outside air to freely circulate through the interior of the motor.

### Permanent magnet rotor of ferrite

Ferrite permanent magnets offer quality at a low price.



### TECHNICAL SPECS

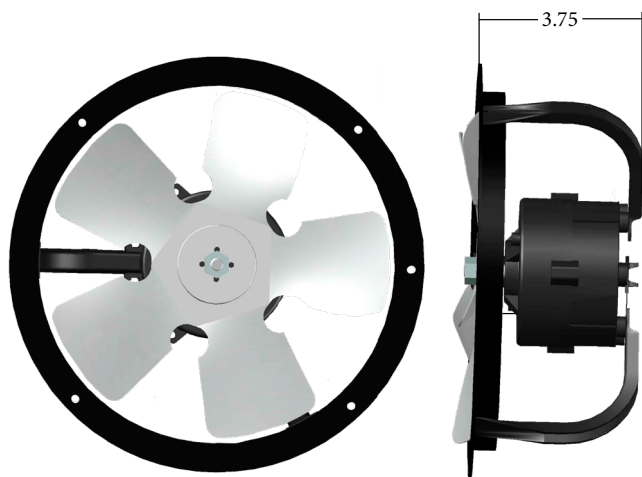
VOLTAGE	CURRENT	HP	RPM	CLASS INSULATION	TP PROTECTION DEVICE	EFFICIENCY
115	0.2	5W	1550	B	TP	63%
115	0.3	9W	1550	B	TP	65%
230	0.15	9W	1550	B	TP	65%
115	0.3	12W	1550	B	TP	66%
115	0.45	16W	1550	B	TP	66%
230	0.23	16W	1550	B	TP	66%
115	0.5 / 0.75	25W	1800-2200	B	TP	68%
230	0.25 / 0.4	25W	1800-2200	B	TP	68%

\* Class B insulation supplied for Standard motors but all other insulation classes are also available



# SMALL AXIAL FAN

## Dimensions



## Types of Blades

The following table shows the available fans for our 5 to 25 watts motors.

POWER	DIA. FAN BLADE	BORE	BLADES
5W	6"	5/16	5
12W	8"	5/16	5
16W	8"	5/16	5

## Constant and variable speed applications

Our ECM adapts to the environment thanks to the speed management, giving you a constant air flow of 650 CFM max.

The fan assembly Kit provides you an easy installation for all standard mountings on every refrigeration/condensation systems.



## TECHNICAL SPECS

VOLTAGE	POWER	SPEED (RPM)	CURRENT	CFM	EFFICIENCY
115 V	25W	2200	0.65A	425	68%
115 V	25W	1800	0.45A	350	62%

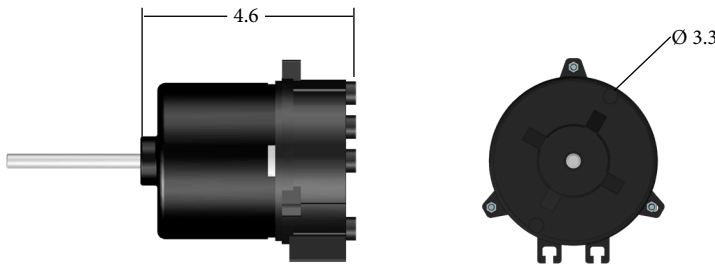
\* Class B insulation supplied for Standard motors but all other insulation classes are also available





## BIG ECM

### Dimensions



### Work Environment

Our motor can operate satisfactorily in ambient temperatures of  $-20^{\circ}\text{C}$  to  $40^{\circ}\text{C}$

### Permanent magnet rotor of ferrite

Ferrite or Neodymium permanent magnets available as required for different efficiencies and different applications performance demands.

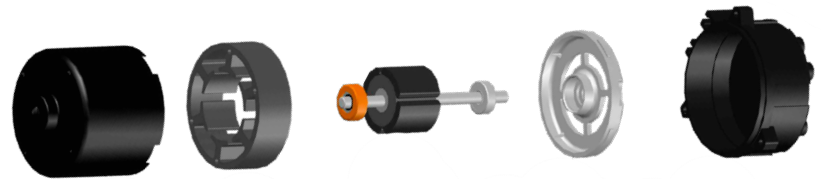
### Ball Bearings

Depending on ambient conditions, our motors are supplied with the best corresponding lubricants. Motor can be supplied with different types of ball bearings as well as sintered iron or brass self-aligning bearings.

### Constant and variable speed applications

Thanks to modern electronics, our small motors have the capability to handle high efficiency up to a minimum of 65%.

We are able to provide multiple performance function with our hardware / software capabilities. As an example, our motors can be supplied with the ability to change speeds by receiving desired signals from external sources. Our control drives supplied within the motor, can operate analogical inputs to modify certain behaviors of the motor.



### TECHNICAL SPECS

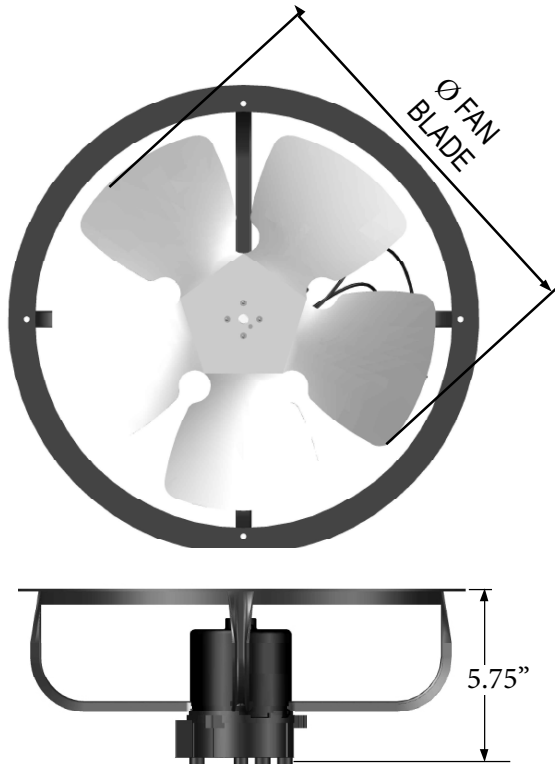
VOLTAGE	CURRENT	HP	RPM	CLASS INSULATION	TP PROTECTION DEVICE	EFFICIENCY
115	0.9	35W	1550	B	TP	67%
230	0.5	35W	1550	B	TP	68%
115	1.2	50W	1550	B	TP	70%
230	0.6	50W	1550	B	TP	72%
115	1.3	65W	1550	B	TP	74%
230	0.75	65W	1550	B	TP	74%

\* Class B insulation supplied for Standard motors but all other insulation classes are also available



## SMALL AXIAL FAN

### Dimensions



### Types of Blades

The following table shows the available fans for our 30 to 50 watts 3.3" diameter motors.

POWER	DIA. FAN BLADE	BORE	BLADES
5W	6"	5/16	5
12W	8"	5/16	5
16W	8"	5/16	5

### Constant and variable speed applications

The applications of electronic commutated motors are unlimited, the axial fan with constant speed allows continuous flow (CFM) at any speed from the range of 500 RPM to 4000 RPM; that is the flexibility that our system can provide, moreover, an additional device can be supplied for our customer to select the desired speed, considering the different application.

### TECHNICAL SPECS

VOLTAGE	POWER	SPEED (RPM)	CURRENT	CFM	EFFICIENCY
115 V	25W	2200	0.65A	425	68%
115 V	25W	1800	0.45A	350	62%

\* Class B insulation supplied for Standard motors but all other insulation classes are also available



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## Frame 42

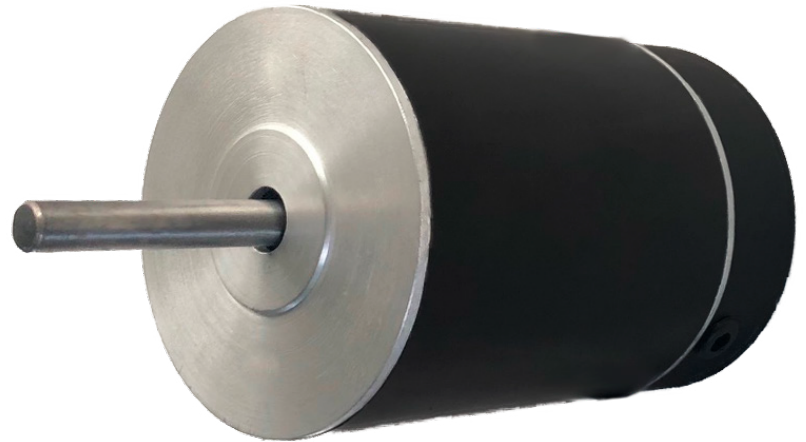
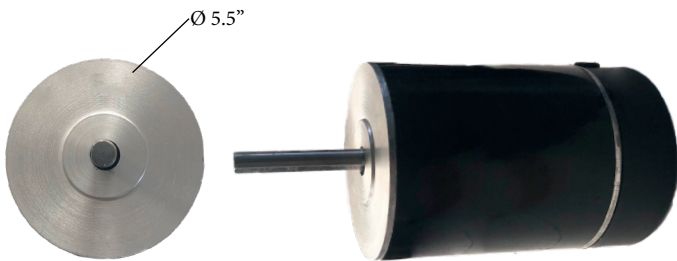
### Features

- Variable speed operation from 400 – 3200RPM
- Multi-Speed selector.
- Replacement control module or motor module

### Benefits

- Efficiency up to 75%
- Constant torque, variable speed
- Encapsulated Electronics
- Low audible noise.

### Dimensions



### Features

- Multi-speed, constant torque, Brushless.
- Single or Dual voltage rated 115/230V, single phase input, 50/60Hz
- Available in 1/8 HP to 1/2 HP ratings
- Discrete speeds using 3.3–10 VDC for variation from 400 RPM to 3200 RPM, plus automatic continuous fan speed.
- Future UL and CSA recognized component

### TECHNICAL SPECS

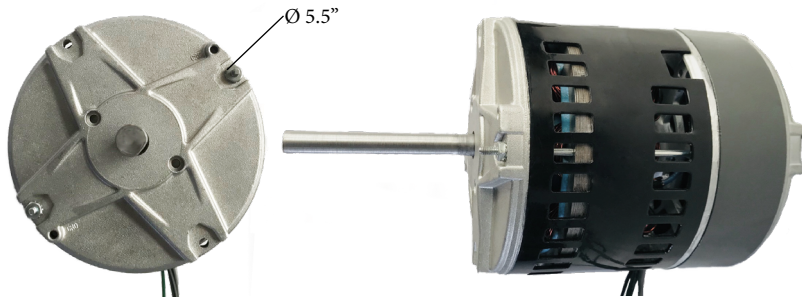
VOLTAGE	CURRENT	HP	RPM	CLASS INSULATION	NEMA FRAME	PPROTECTION DEVICE
230	1.0	1/8	1350	B	42	Thermal Protector
230	1.5	1/6	1350	B	42	Thermal Protector
115	2.6	1/6	1500	B	42	Thermal Protector
230	1.4	1/6	1500	B	42	Thermal Protector
227	0.8/1.4	1/5	650-1600	B	42	Thermal Protector
115	4.8	1/4	1550	B	42	Thermal Protector
230	2.6	1/4	1550	B	42	Thermal Protector
230	2.4	1/3	2100	B	42	Thermal Protector
230	3.5	1/2	1800	B	42	Thermal Protector

\* Class B insulation supplied for Standard motors but all other insulation classes are also available



## SMALL ECM FRAME 48

### Dimensions



### Features

- Multi-speed, constant torque, Brushless.
- Single or Dual voltage rated 115/230V, single phase input, 50/60Hz
- Used normally to replace direct-drive blower motors in residential and light commercial indoor furnaces, air handlers and package systems.
- Available in 1/4 HP to 1/2 HP ratings
- Discrete speeds using 3.3 – 10 VDC for variation from 400 RPM to 3200 RPM.
- Multi-speed selection.
- NEMA 48-frame (5.6 inch diameter) belly band mount with 5-inch long 1/2 inch diameter shaft
- Future UL and CSA recognized component

### Benefits

- Efficiency up to 80%
- Constant torque
- Soft start and off ramp for quieter operation
- Quiet and energy efficient continuous fan speed
- Encapsulated electronics
- Thermally Protected Motor
- Fuse Protection Control

### TECHNICAL SPECS

VOLTAGE	CURRENT	HP	RPM	NEMA FRAME	CLASS	PROTECTION DEVICE
115	3.5	1/4	1100	48	B	Thermal Protector
230	2.1	1/4	1100	48	B	Thermal Protector
115/230	3.7 / 2.2	1/4	1100	48	B	Thermal Protector
115	4.2	1/3	1100	48	B	Thermal Protector
230	2.6	1/3	1100	48	B	Thermal Protector
115/230	4.5 / 2.8	1/3	1100	48	B	Thermal Protector
115	6.4	1/2	1100	48	B	Thermal Protector
230	3.9	1/2	1100	48	B	Thermal Protector
115/230	6.8 / 4.1	1/2	1100	48	B	Thermal Protector

\* Class B insulation supplied for Standard motors but all other insulation classes are also available





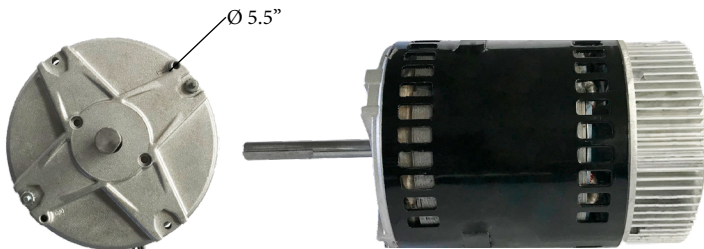
## BIG ECM FRAME 48

### Features

- Variable speed operation from 400 – 2500RPM with input voltage of 3.3 – 10 VDC.
- Multi-Speed management selector.
- Replacement control module or motor module simplify
- Ball bearings
- Thermally Protected Motor
- Fuse Protection Controlsimplify
- Ball bearings



### Dimensions



### Benefits

- Efficiency up to 80%
- Constant torque, variable speed
- Encapsulated Electronics
- Low audible noise.

### TECHNICAL SPECS

VOLTAGE	CURRENT	HP	RPM	NEMA FRAME	CLASS	PROTECTION DEVICE
115	9.8	3/4	1100	48	F	Thermal Protector
230	5.9	3/4	1100	48	B	Thermal Protector
115/230	10 / 6.1	3/4	1100	48	F	Thermal Protector
115	12.5	1	2100	48	F	Thermal Protector
230	7.1	1	2100	48	B	Thermal Protector
115/230	13 / 7.2	1	2100	48	F	Thermal Protector

\* Class B insulation supplied for Standard motors but all other insulation classes are also available