



Evergreen®

EVER EFFICIENT. EVER RELIABLE. EVER PROFITABLE.



 genteq®

A Regal Brand

**REGAL**

## Upgrade/Replace PSC motors with **Evergreen® IM**



Residential/Light Commercial HVAC Systems

- Reduce truck stock
- Increase energy savings
- Increase comfort and home health
- Decrease continuous fan noise and power consumption
- Easy drop-in replacement - connects directly to fan boards or relays
- Two year warranty

## Replace OEM ECM X13 motors with **Evergreen® EM**



Residential/Light Commercial HVAC Systems

- Replaces X13 and similar Constant Torque ECM
- Maintains system efficiency and performance
- Compatible with OEM harness
- Pre programmed for truck stock
- No complex wiring or configuration
- Two year warranty

## Replace OEM ECM X13 motors with **Evergreen® CM**



Commercial Air Handler/Package Systems and VAV Applications

- Replaces X13 and similar competitor Constant Torque ECM
- Upgrade/Replace PSC motors in VAV and air handler applications
- Precise air balancing using PWM or 0-10VDC controls
- Pre programmed for truck stock
- No complex wiring or configuration
- Two year warranty

# EVERGREEN® Products Coming Soon!

## Evergreen® PF

The Evergreen Pedestal Fan Motor, also known as Evergreen PF, is designed specifically for pedestal and wall mount fans that are used in warehouses, factory floors, amusement parks and institutional buildings. With the ever-increasing demand for energy-efficient equipment, the Evergreen Pedestal Fan Motor brings new meaning to sustainability. The Evergreen PF will be available in Q1 of 2015.



- Cost-effective solution to replacing entire fan assembly
- Drop-in replacement for original pedestal-fan motors
- Replaces 1/4 - 1/3 hp motors
- Dual rotation (CW/CCW)
- Easy Retrofit – power cord, switch and welded mount provided
- Quiet start and operation (3 speed by pull chain)
- Efficiency up to 82%

## ANNUAL ENERGY SAVINGS Number of Fans

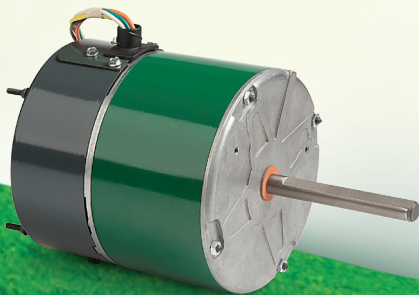
STOCK NO.	HP	RPM	VOLTS	MAX CURRENT
6803	1/3	1160/970/650	115	5.8

Cycle Hours	Number of Fans				
	1	5	10	25	50
8	\$100	\$498	\$996	\$2,490	\$4,980
16	\$199	\$996	\$1,992	\$4,980	\$9,960
24	\$299	\$1,494	\$2,988	\$7,470	\$14,940

Savings based on \$0.12/KWhr utility rate and 1/3 HP PSC motor running on high speed

## Evergreen® OM

The Evergreen Outdoor Motor, also known as Evergreen OM, is designed for direct-drive fan propeller applications in residential systems up to 5-tons. Easily replaces 6 Pole (1,100 rpm rated) and 8 pole (850 rpm rated) shaded pole or PSC motors. The Evergreen OM will be available in Q1 of 2015.



- Drop-in replacement for induction motors
- Easy Retrofit – line voltage connections
- Quiet start and operation
- Dual rotation (CW/CCW)
- Efficiency up to 80%

STOCK NO.	HP	VOLTS	MAX CURRENT
6301	1/5	230V	2.8
6303	1/3	230V	3.5
6903	1/3	460V	1.6
6905	1/2	460V	2.5
6907	3/4	460V	3.1

For more information on the Evergreen PF and Evergreen OM, contact your Regal Sales Professional, or contact customer service at 1-800-672-6495.

# Evergreen® Applications Overview

*All products below are rated for direct drive, indoor blower motor applications only.*

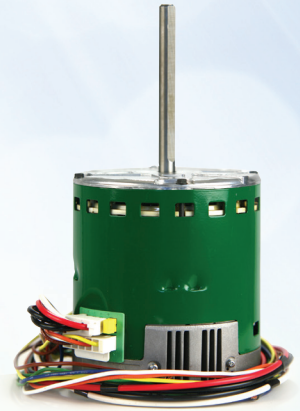


PSC

## Evergreen® IM

Replaces Permanent Split Capacitor (PSC), direct drive, induction motors with the following ratings:

Horse Power: 1/4-1  
RPM Rating: 1075  
Voltage: 120 & 208-230  
Rotation: CW & CCW

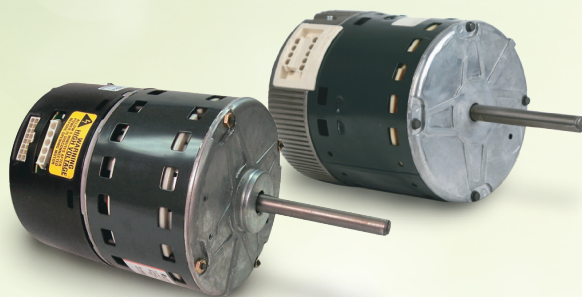


Constant Torque ECM  
Genteq X13 or Similar  
Competitors Models

## Evergreen® EM or CM

Replaces OEM Constant Torque ECM built with 24v speed taps with the following ratings:

Horse Power: 1/3-1  
RPM Rating: 1070  
Voltage: 115 or 208-230 (Evergreen EM)  
Voltage: 208-230/277 or 460 (Evergreen CM)  
Rotation: CW & CCW



Constant Airflow (variable speed) Communicated ECM  
Genteq Models 2.0, 2.3, 2.5, 3.0, and Eon

## Not Compatible with Evergreen®

There are no generic replacements for Constant Airflow (Variable Speed) ECM.

These motors can only be replaced with their OEM equivalent from an authorized distributor of the HVAC systems manufacture.



# Specifications Overview

MODEL	STOCK	HP	VOLTAGE	FLA	ROTATION	RPM	FRAME
Evergreen IM (PSC Replacement)	6005	1/2 (1/2,1/3,1/4)	115/230	6.7/4.0	CCW/CW	1075	NEMA 48
	6010	1 (1,3/4,1/2)	115/230	11.0/6.7	CCW/CW	1075	NEMA 48
Evergreen EM (X13 Replacement)	6103E	1/3	115	4.8	CCW/CW	1075	NEMA 48
	6105E	1/2	115	6.8	CCW/CW	1075	NEMA 48
	6107E	3/4	115	8.4	CCW/CW	1075	NEMA 48
	6110E	1	115	10.9	CCW/CW	1075	NEMA 48
	6203E	1/3	208-230	2.8	CCW/CW	1075	NEMA 48
	6205E	1/2	208-230	4.1	CCW/CW	1075	NEMA 48
	6207E	3/4	208-230	6.0	CCW/CW	1075	NEMA 48
	6210E	1	208-230	7.6	CCW/CW	1075	NEMA 48
Evergreen CM (X13 Replacement/ PSC upgrade in commercial applications)	6703	1/3	208-230/277	2.8	CCW/CW	1075	NEMA 48
	6705	1/2	208-230/277	4.1	CCW/CW	1075	NEMA 48
	6707	3/4	208-230/277	6.0	CCW/CW	1075	NEMA 48
	6710	1	208-230/277	7.6	CCW/CW	1075	NEMA 48
	6405	1/2	460	2.1	CCW/CW	1075	NEMA 48
	6407	3/4	460	3.2	CCW/CW	1075	NEMA 48
	6410	1	460	4.0	CCW/CW	1075	NEMA 48

## Motor Mounts for Evergreen®

All Evergreen motors are NEMA 48-frame (5.6" diameter). If the failed motor has the same frame dimensions and uses a belly band mount, Evergreen will fit in the existing mount.

A new motor mount may be required if the old mount is connected to the motor around the bearing (resilient mount), or welded or bolted directly to the motor shell.

To determine the bolt hole diameter needed, measure the diameter of the air inlet. The bolt hole dimension must be larger than this dimension.

### Genteq Mounting Kits



CATALOG # GA556  
9-10" bolt circle  
Torsion Flex  
NEMA 48 Frame  
(5.6" dia.) 3 legs

*\*Not recommended for  
3/4 HP or 1HP motors*



CATALOG # 5K003  
(10" bolt circle)  
CATALOG # 5K004  
(11" bolt circle)  
NEMA 48 Frame  
(5.6" dia.) 3 legs



CATALOG # 5K005  
13" bolt circle  
NEMA 48 Frame  
(5.6" dia.) 4 legs

# Evergreen® · IM

DESIGNED TO REPLACE FACTORY PSC INDOOR BLOWER MOTORS,  
AND CENTURY® COMFORT SELECT™ ~ FB  
IN HVAC SYSTEMS.



Evergreen IM is a high-efficiency ECM replacement motor that is designed to replace factory PSC blower motors in HVAC systems and the Century Comfort Select - FB. That means you can now offer your customers the comfort and efficiency of ECM in an easy-to-install replacement motor.

Built from the same trusted, field-proven ECM technology that is found in millions of OEM systems nationwide, Evergreen uses up to 25% fewer watts in operating mode and up to 75% fewer watts than a PSC motor in constant fan.

**Evergreen IM is not approved to replace existing ECM Variable Speed or X13 motors, should not be used on twinned systems and should not be used on belt drive systems.** There are 2 Evergreen IM Models. Please make sure to use the appropriate troubleshooting information. See the Evergreen IM Manual.

This motor is dual voltage 115/230VAC, reversible, multi-horsepower, and designed for all residential HVAC systems less than 5 ton of cooling and 150k BTUh of heating.



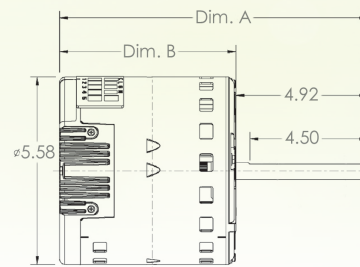
Rotation Sensing Technology™

## SPECIFICATIONS

- 2 Motors cover most applications
- Multi-volt 115/230 and reversible rotation
- Integrated with HVAC system controls/operation
- 4 speed selections for heating and cooling
- Optimized constant fan speed
- 2 year warranty
- Reduce truck stuck, no capacitors to change out or stock

## BENEFITS

- Energy Savings
- Quiet Operation
- Comfort
- Indoor Air Quality



## MOTOR COMPARISON

	PSC MOTOR	STANDARD ECM (X13)	PREMIUM ECM (Eon & 3.0)	ECM RETROFIT Evergreen IM
TECHNOLOGY	Induction Motor	Brushless DC	Brushless DC	Brushless DC
AVAILABLE HORSEPOWER	1/3, 1/2, 3/4, 1 HP	1/3, 1/2, 3/4, 1 HP	1/3, 1/2, 3/4, 1 HP	1/2, 1 HP
SPEEDS	**Select 1-5 taps	**Select 1-5 taps	Variable-speed	**Select 1-5 taps
SPEED RANGE	800-1100 RPM	600-1100 RPM	200-1300 RPM	600-1200 RPM
CLIMATE PROFILES	NO	NO	YES	NO
INTELLIGENT CONTROLS	NO	Constant Torque	Constant Airflow	Constant Torque
ADVANCED FEATURES	NO	NO	Communicating Motor, BlaKBox™ Technology	NO
PEAK MOTOR EFFICIENCY	59%	80%	80%	80%
AVERAGE POWER * (COOLING CFM)	515 W	413 W	413 W	413 W
AVERAGE POWER * (CONTINUOUS FAN CFM)	515 W	200 W	83 W	95 W
SUMMARY	No Features, Baseline Product	Limited Features, High Efficiency	Full Features, Maximum Efficiency	Limited Features, High Efficiency
APPLICATION	Retrofit & OEM	OEM	OEM	Retrofit for indoor PSC Motors

\* Average power consumption based on specified setting in a typical 3-ton system.

\*\* 4 Speed taps with automatic continuous fan speed.

### Evergreen IM Motors

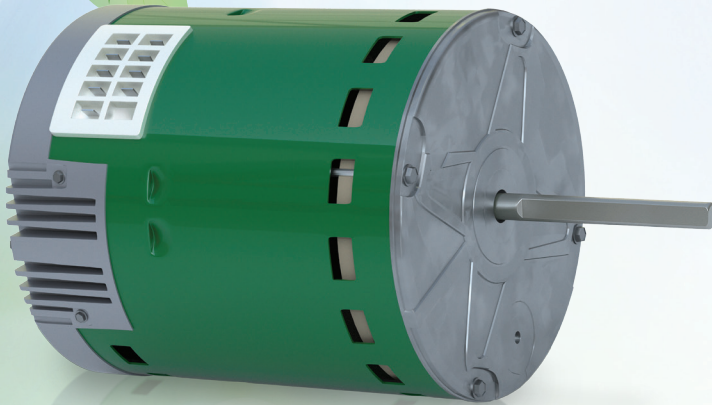
STOCK NO.	HP	VOLTS	MAX CURRENT	ROTATION	DIM A	DIM B	APPROXIMATE WEIGHT
6005	1/2	115/230	6.7/4.0	CCW/CW	11.26"	6.34"	12 lbs
6010	1	115/230	11.0/6.7	CCW/CW	12.76"	7.84"	20 lbs

### Stock No. Cross Reference

EVERGREEN STOCK NO.	CENTURY STOCK NO.	US MOTORS STOCK NO.
6005	CSL1056	5530ET
6005	CS1056	5531ET
6010	CSL1106	5550ET
6010	CS1106	5551ET

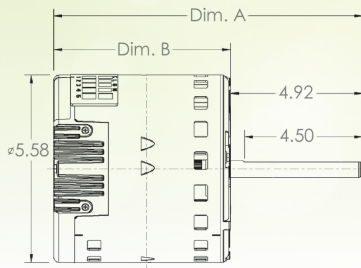
# Evergreen® · EM

DESIGNED TO REPLACE OEM CONSTANT TORQUE STANDARD ECM INDOOR BLOWER MOTORS SUCH AS X13 OR EQUIVALENT COMPETITOR MODELS WITH 24VAC SPEED TAPS.



## SPECIFICATIONS

- Multi-speed, constant torque, brushless DC motor
- Available in 115V or 208-230VAC single-phase input, 50/60Hz
- Available in 1/3, 1/2, 3/4 and 1HP ratings
- Automatically determines motor direction using Genteq's Rotation Sensing Technology.
- 5 discrete speeds using 24VAC (3 using 18VDC) Low voltage signal harness provided with the motor.
- Operating speed range of 600-1200 rpm
- NEMA 48-frame (5.6 inch diameter) Belly Band Mount with 5-inch long ½ inch diameter shaft.
- UL and CSA recognized component.



## BENEFITS

- Constant Torque (Standard) ECM Replacement (Does not replace Constant Airflow (Variable Speed) Premium ECM products such as Genteq models 2.0, 2.3, 2.5, 3.0 and EON)
- Maintains ECM-level Efficiency up to 80%
- Soft Start and Off Ramp for quiet operation
- Alternate use for Commercial Building Series VAV Box and Packaged Heat Pump Retrofit/ Upgrade Motor for a PSC system (Refer to Evergreen EM Instruction Manual)
- Encapsulated Electronics
- 4kV Surge Protection
- Electronic Overload Protection
- Pre-Programmed for truck stuck
- No complex wiring or configuration
- 2 Year Warranty



Rotation Sensing Technology™



## MOTOR COMPARISON

	PSC MOTOR	STANDARD ECM (X13)	PREMIUM ECM (Eon & 3.0)	ECM RETROFIT Evergreen EM
TECHNOLOGY	Induction Motor	Brushless DC	Brushless DC	Brushless DC
AVAILABLE HORSEPOWER	1/3, 1/2, 3/4, 1 HP	1/3, 1/2, 3/4, 1 HP	1/3, 1/2, 3/4, 1 HP	1/3, 1/2, 3/4, 1 HP
SPEEDS	Select 1-5 taps	Select 1-5 taps	Variable-speed	Select 1-5 taps
SPEED RANGE	800-1100 RPM	600-1100 RPM	200-1300 RPM	600-1200 RPM
CLIMATE PROFILES	NO	NO	YES	NO
INTELLIGENT CONTROLS	NO	Constant Torque	Constant Airflow	Constant Torque
ADVANCED FEATURES	NO	NO	Communicating Motor, BlaKBox™ Technology	NO
PEAK MOTOR EFFICIENCY	59%	80%	80%	80%
AVERAGE POWER * (COOLING CFM)	515 W	413 W	413 W	413 W
AVERAGE POWER * (CONTINUOUS FAN CFM)	515 W	200 W	83 W	200 W
SUMMARY	No Features, Baseline Product	Limited Features, High Efficiency	Full Features, Maximum Efficiency	Limited Features, High Efficiency
APPLICATION	Retrofit & OEM	OEM	OEM	Retrofit for indoor PSC and X13 Motors

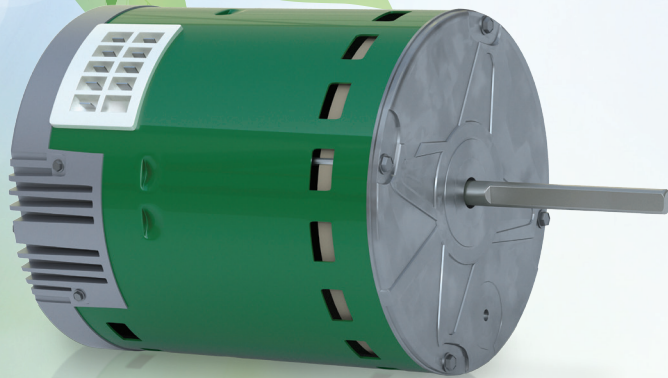
\* Average power consumption based on specified setting in a typical 3-ton system.

### Evergreen EM Motors

STOCK NO.	HP	VOLTS	MAX CURRENT	ROTATION	DIM A	DIM B	APPROXIMATE WEIGHT
6103E	1/3	115	4.8 A	CCW/CW	10.17"	5.25"	8.4 lbs
6105E	1/2	115	6.8 A	CCW/CW	10.67"	5.75"	11.3 lbs
6107E	3/4	115	8.4 A	CCW/CW	11.42"	6.5"	15.6 lbs
6110E	1	115	10.9 A	CCW/CW	12.17"	7.25"	19.3 lbs
6203E	1/3	208-230	2.8 A	CCW/CW	10.17"	5.25"	8.4 lbs
6205E	1/2	208-230	4.1 A	CCW/CW	10.67"	5.75"	11.3 lbs
6207E	3/4	208-230	6.0 A	CCW/CW	11.42"	6.5"	15.6 lbs
6210E	1	208-230	7.6 A	CCW/CW	12.17"	7.25"	19.3 lbs

# Evergreen® · CM

DESIGNED TO REPLACE OEM CONSTANT TORQUE STANDARD ECM INDOOR BLOWER MOTORS SUCH AS X13 OR EQUIVALENT COMPETITOR MODELS WITH 24VAC SPEED TAPS.



## SPECIFICATIONS

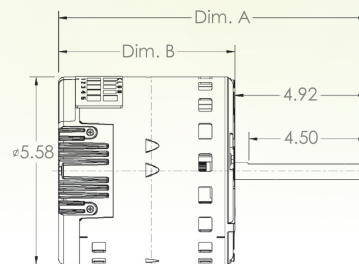
- Variable speed, constant torque, brushless DC motor
- 208-230/277V AC single-phase input, 50/60Hz
  - » Available in 1/3, 1/2, 3/4 and 1HP ratings
- 460V AC single-phase input, 50/60Hz
  - » Available in 1/2, 3/4 and 1HP ratings
- Automatically determines motor direction using Genteq's Rotation Sensing Technology.
- 5 discrete speeds using 24VAC (3 using 18VDC)
- Variable Speed Control using Auto-switch mode. Motor switches to variable speed mode when a PWM input is detected.
- Operating speed range of 600-1200 rpm
- NEMA 48-frame (5.6 inch diameter) Belly Band Mount with 4-inch long 1/2 inch diameter shaft.
- UL and CSA recognized component.

## BENEFITS

- Constant Torque (Standard) ECM Replacement (Does not replace Constant Airflow (Variable Speed) Premium ECM products such as Genteq models 2.0, 2.3, 2.5, 3.0 and EON)
- Efficiency up to 80%
- Alternate use for Commercial Building Series VAV Box and packaged heat pump retrofit/upgrade motor for a PSC system (Please refer to Evergreen CM Instruction manual)
- Air balancing using an ECM PWM Speed Controller.
- Soft Start and Off Ramp for quieter operation
- Encapsulated Electronics
- Improved CFM performance compared to PSC motors when External Static Pressure increases
- 2 Year Warranty



Rotation Sensing Technology™



## MOTOR COMPARISON

	PSC MOTOR	STANDARD ECM (X13)	PREMIUM ECM (Eon & 3.0)	ECM RETROFIT Evergreen CM
TECHNOLOGY	Induction Motor	Brushless DC	Brushless DC	Brushless DC
AVAILABLE HORSEPOWER	1/3, 1/2, 3/4, 1 HP	1/3, 1/2, 3/4, 1 HP	1/3, 1/2, 3/4, 1 HP	1/3**, 1/2, 3/4, 1 HP
SPEEDS	Select 1-5 taps	Select 1-5 taps	Variable-speed	Select 1-5 taps
SPEED RANGE	800-1100 RPM	600-1100 RPM	200-1300 RPM	600-1200 RPM
CLIMATE PROFILES	NO	NO	YES	NO
INTELLIGENT CONTROLS	NO	Constant Torque	Constant Airflow	Constant Torque
ADVANCED FEATURES	NO	NO	Communicating Motor, BlaKBox™ Technology	NO
PEAK MOTOR EFFICIENCY	59%	80%	80%	80%
AVERAGE POWER * (COOLING CFM)	515 W	413 W	413 W	413 W
AVERAGE POWER * (CONTINUOUS FAN CFM)	515 W	200 W	83 W	200 W
SUMMARY	No Features, Baseline Product	Limited Features, High Efficiency	Full Features, Maximum Efficiency	Limited Features, High Efficiency
APPLICATION	Retrofit & OEM	OEM	OEM	Retrofit for indoor PSC Motors

\* Average power consumption based on specified setting in a typical 3-ton system. \*\* 1/3 HP not available in 460V model.

### Evergreen CM Motors

STOCK NO.	HP	VOLTS	MAX CURRENT	ROTATION	DIM A	DIM B	APPROXIMATE WEIGHT
6703	1/3	208-230/277	2.8 A	CCW/CW	9.17"	5.25"	8.3 lbs
6705	1/2	208-230/277	4.1 A	CCW/CW	9.67"	5.75"	11.3 lbs
6707	3/4	208-230/277	6.0 A	CCW/CW	10.42"	6.5"	15.5 lbs
6710	1	208-230/277	7.6 A	CCW/CW	11.17"	7.25"	19.3 lbs
6405	1/2	460	2.1 A	CCW/CW	10.53"	6.61"	12.8 lbs
6407	3/4	460	3.2 A	CCW/CW	11.28"	7.36"	16.1 lbs
6410	1	460	4.0 A	CCW/CW	12.03"	8.11"	19.8 lbs





**Evergreen®**

**Call to order 1-800-672-6495**



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[thedealertools.com](http://thedealertools.com)

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