

**FHP** **PERFORMA+**

**VARIABLE SPEED  
HIGH-PERFORMANCE AG FAN MOTORS**

The all new **PERFORMA+** brings fan motor performance to a new level. These high-efficiency motors feature exceptional variable speed performance.

**Features:**

Water-tight connection end compartment with removable cover, houses the capacitor, thermal protector and wiring—allowing unimpeded airflow over the motor frame.

Locked, double-sealed bearings for all angle mounting, including vertical shaft up.

Oil seal in drive end repels moisture and contaminants.

Class F insulation with Class B rise.

Permanent split capacitor type design eliminates the centrifugal switch for “three phase” type reliability.

Automatic thermal overload protection.



**TEAO • RIGID BASE • EXTENDED THRU-BOLTS**

HP	RPM 60 Hz	NEMA Frame	Catalogue Number	App. Wgt. (lbs.)	Voltage	Over- load Prot.	F.L. Amps 230V	Shaft Length (in.)
1/4	1625	48Y	<b>M099899</b>	18	115/208-230	Auto.	1.3	2
	1060	48Y	<b>M099460</b>	21	115/208-230	Auto.	1.3	2
	1625	48YZ	<b>M099909</b> <sup>^</sup>	18	115/208-230	Auto.	1.3	2
1/3	1625	48Y	<b>M099900</b>	19	115/208-230	Auto.	1.8	2
	1060	48Y	<b>M099461</b>	22	115/208-230	Auto.	1.9	2
	1625	48YZ	<b>M099910</b> <sup>^</sup>	19	115/208-230	Auto.	1.8	2
1/2	1650	48Y	<b>M099901</b>	22	115/208-230	Auto.	2.6	2
	1060	48Y	<b>M099462</b>	25	115/208-230	Auto.	2.8	2
	1625	48YZ	<b>M099911</b> <sup>^</sup>	22	115/208-230	Auto.	2.6	2

<sup>^</sup> Requires Mounting Bracket ARM12FP

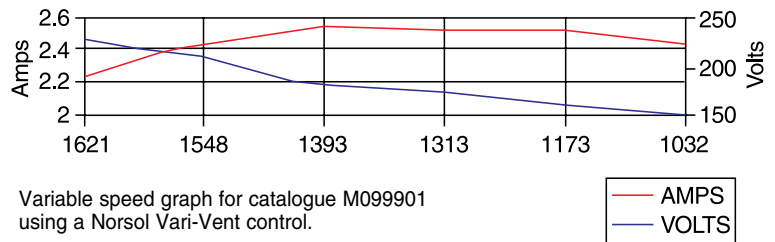
Description	Catalogue Number	Wgt. (lbs.)
<sup>^</sup> Mounting bracket kit/with hardware	<b>ARM12FPKIT</b>	2

**THREE-ARM  
REPLACEMENT MOTORS**

These Performa+ motors are designed for easy and economical replacement of other popular three-arm fan motors. The motors feature adjustable brackets. ARM12FPKIT has three arms and mounting hardware. By simply cutting the arms to length you can cover many different fan and housing sizes.



PERFORMA+ Fan Motor Performance @ 0.05 Inches S.P.



Variable speed graph for catalogue M099901 using a Norsol Vari-Vent control.

**PEDESTAL FAN MOTORS**

**LEESON FHP totally enclosed, airover fan motors** for air circulators where motor is mounted directly to fan column.

Energy efficient, permanent split capacitor type design eliminates the centrifugal switch for “three phase” reliability. Totally enclosed ball bearing design for commercial and industrial environments. Automatic thermal overload protection, reversible.

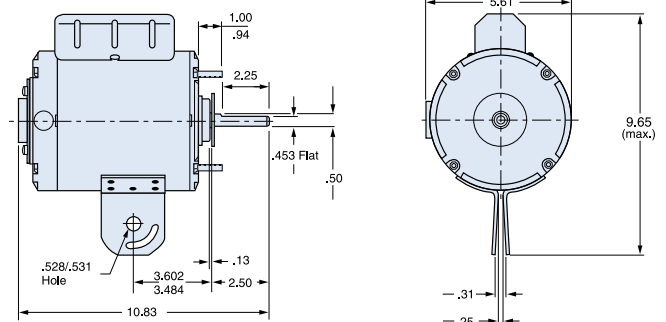
Heavy-gauge steel yoke is welded to the motor frame. Four mounting studs are extended 1/2” on 5.14” bolt circle for mounting of fan shroud.



**PSC • \*WITH ON/OFF SWITCH • PULL CHAIN  
10 FT. CORD AND PLUG**

HP	RPM 60 Hz	NEMA Frame	Catalogue Number	App. Wgt. (lbs.)	Voltage	Over- load Prot.	F.L. Amps 230V
1/4	1650	48Y	<b>M099731</b>	17	115-208/230	Auto.	1.3
	1650	48Y	<b>M099728</b> <sup>*</sup>	19	115	Auto.	1.3
	1060	48Y	<b>M080891</b>	21	115/208-230	Auto.	1.2
1/3	1650	48Y	<b>M099732</b>	20	115-208/230	Auto.	1.7
	1650	48Y	<b>M099729</b> <sup>*</sup>	22	115	Auto.	1.7
	1060	48Y	<b>M080892</b>	24	115/208-230	Auto.	1.5
1/2	1650	48Y	<b>M099733</b>	22	115-208/230	Auto.	2.3
	1650	48Y	<b>M099730</b> <sup>*</sup>	23	115	Auto.	2.3
	1060	48Y	<b>M080893</b>	26	115/208-230	Auto.	2.7

<sup>\*</sup> With switch, cord and plug





## FAN & BLOWER MOTORS

### SINGLE PHASE

### PREMIUM EFFICIENCY INDUSTRIAL/RESIDENTIAL BELTED FAN MOTORS

High-efficiency motors for residential or industrial belted fan application.

Features include quiet bearings, resilient cradle base and "Super-Hush" flow-through ventilation.

Rotors are specially balanced for smooth and quiet operation.

Spade connectors on terminal board in standard wiring format along with industry standard mounting allow for quick and easy interchange with other makes.



### OPEN DRIP-PROOF • 115V • SINGLE PHASE

HP	RPM 60 Hz	NEMA Frame	Catalogue Number	App. Wgt. (lbs.)	Voltage	Over- load Prot.	F.L. Amps 115V	% F.L. Eff.	"C" Dim. (Inches)
1/4	1800	48	<b>M090602*</b>	15	115	Auto.	2.5	71.0	9.88
	1800	48	<b>101602 •</b>	19	115	Auto.	2.5	71.0	10.39
1/3	1800	48	<b>M090405*</b>	19	115	Auto.	3.2	75.0	9.88
	1800	48	<b>101405 •</b>	19	115	Auto.	3.2	75.0	10.39
1/2	1800	48	<b>M090585*</b>	22	115	Auto.	4.6	76.0	10.50
	1800	48	<b>101585 •</b>	25	115	Auto.	4.6	76.0	11.39

\* Premium efficiency FHP® brand motors.

• WATSAVER® Premium efficiency fan motors.



#### Features:

- Drop-in replacement for most standard belted-fan motors
- Extremely quiet running compared to standard fan motors
- Consumes approximately half of the power of a standard fan motor

### RESIDENTIAL/INDUSTRIAL BELTED FAN MOTORS SPLIT PHASE

Designed for use in residential and commercial fans and blowers where low starting torque is required. (Air conditioners, roof ventilators and exhaust fans.)



### OPEN DRIP-PROOF • RESILIENT BASE • AUTOMATIC OVERLOAD

HP	RPM 60 Hz	NEMA Frame	Bearing Type	Catalogue Number	App. Wgt. (lbs.)	Voltage	Over- load Prot.	F.L. Amps 115V	"C" Dim. (Inches)
1/4	1800	48YZ	Ball	<b>M900195</b>	13	115	Auto.	5.0	9.72
1/3	1800/1200	56	Ball	<b>M900277</b>	20	115	Auto.	5.3/2.9	10.78
	1800	48YZ	Ball	<b>M900196</b>	15	115	Auto.	6.1	9.72
1/2	1800/1200	56	Ball	<b>M900599</b>	30	115	Auto.	8.1/4.5	11.85
	1800	48YZ	Ball	<b>M900197</b>	20	115	Auto.	7.2	10.72

#### Features:

Sleeve or ball bearings.

NEMA Service factors.

Resilient "cradle" style base.

48Y frame has both 48 and 56 frame mounting holes.

### INDUSTRIAL SPLIT PHASE MOTORS

**LEESON FHP Commercial Duty**, split phase motors with moderate starting torque, designed for continuous duty on ventilation fans, blowers and other belt driven or fan on shaft applications.

Resilient base for quiet operation. Prelubricated ball bearings for long life in commercial and industrial environments. Has automatic thermal overload and built-in terminal panel style connection provisions.



### DRIP-PROOF • RESILIENT BASE • AUTOMATIC OVERLOAD

HP	SYN RPM 60 Hz	NEMA Frame	Catalogue Number	App. Wgt. (lbs.)	Voltage	Over- load Prot.	F.L. Amps 115V	Service Factor	"L" Dim. (Inches)	"C" Dim. (Inches)
1/4	1800	48	<b>191868</b>	15	115/230	Auto.	4.6	1.35	4.00	9.37
1/3	1800	48	<b>191869</b>	17	115/230	Auto.	5.8	1.35	4.51	9.88
1/2	1800	48	<b>191870</b>	19	115/230	Auto.	8.4	1.25	5.02	10.39

Dimensions on Page 282

### AGRICULTURAL FAN MOTORS BELT DRIVE • TEAO

**FHP motors** designed for use in agricultural belted fan applications. These motors feature capacitor start/capacitor run configuration for hi-efficiency. They should be mounted in the airstream for proper cooling. They also feature a heavy gauge steel frame with rigid 56/140 combination base.



### AERATION FAN MOTORS DIRECT DRIVE • TEAO

**Totally enclosed air over motors**, dust-tight, suitable for shaft-mounted fans or belt driven fans. Capacitor start designs. Designed to be used within the airflow of the driven fan, these motors offer protection from the environment and are finished in epoxy enamel to resist corrosion in tough atmospheres. Lubricated with high temperature Exxon POLYREX® EM lubricant. Grounding provisions. Fully gasketed. Single phase motors have built-in terminal panel for quick, easy connections.



### CROP DRYER MOTORS

Open air over, fan-on-shaft design motors for crop drying applications. Designed for continuous duty operation. Class F insulation system. Thermostats provide thermal overload protection on all units. Extra nameplate included for remote mounting. Keyed shaft with 1/4-20 UNC tapped hole in end.

Capacitors supplied on single phase models. All models include sealed bearings, rodent screens, gray epoxy paint and 3/4" leads exiting the motor at 12 o'clock.



### HIGH-EFFICIENCY • SINGLE PHASE

HP	RPM 60 Hz	NEMA Frame	Catalogue Number	App. Wgt. (lbs.)	Voltage	Eff.	Over- load Prot.	F.L. Amps 230V
1/2	1800	56	<b>M009580</b>	28	115/208-230	80.6	Auto.	2.2
3/4	1800	56H	<b>M009581</b>	30	115/208-230	82	Auto.	3.4
1	1800	56H	<b>M009782</b>	37	115/208-230	85	Auto.	4.3
1 1/2	1800	56H	<b>M009594</b>	39	115/208-230	78	Auto.	6.8
2	1800	143T	<b>M009595*</b>	50	230	83	Auto.	9.5

\* This model has a side mounted conduit box while the others have a built in box in the NDE.

### SINGLE PHASE • CAPACITOR START • TEAO • RIGID BASE

HP	RPM 60 Hz	NEMA Frame	Catalogue Number	App. Wgt. (lbs.)	Voltage	Over- load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
3/4	3600	56	<b>111332</b> Ⓣ	27	115/230	None	5.0	10.90
1	3600	56	<b>111333</b> Ⓣ	29	115/230	None	6.0	10.90
1 1/2	3600	56	<b>111949</b> Ⓣ	32	115/230	None	8.5	11.40
	3600	143TZ	<b>120374</b> Ⓢ	31	115/230	None	8.5	11.84
2	3600	145TZ	<b>120375</b> Ⓢ	41	230	None	10.0	13.34
3	3600	145T	<b>120376</b> ☆	45	230	None	12.8	13.84

**These TEAO motors have a 1.0 Service Factor.  
Built-in terminal panel for quick easy connections.**

- Ⓣ Standard 5/8" diameter shaft with keyway plus 3/4" deep hole drilled and tapped to 10-24 UNC in end of shaft to facilitate mounting of some fan blades.
- Ⓢ Standard 7/8" diameter shaft with keyway plus 3/4" deep hole drilled and tapped to 1/4-20 UNC in end of shaft to facilitate mounting of some fan blades.
- ☆ Capacitor start/capacitor run design for reduced amperage, others are capacitor start/induction run.

### SINGLE PHASE

HP	RPM 60 Hz	NEMA Frame	Catalogue Number	App. Wgt. (lbs.)	Voltage	Over- load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
5-7	3600	182TZ	<b>131847</b>	91	230	T-Stat	27.2-35.0	16.44
7.5-10	3600	182TZ	<b>131848</b>	95	230	T-Stat	31.0-42.0	16.44
10-15	3600	215TZ	<b>140640</b>	159	230	T-Stat	39.5-61.5	20.42

### THREE PHASE

HP	RPM 60 Hz	NEMA Frame	Catalogue Number	App. Wgt. (lbs.)	Voltage	Over- load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
5-7.5	3600	184TZ	<b>131849</b>	70	208-230/460	T-Stat	19.0	13.94
7.5-10	3600	184TZ	<b>131850</b>	85	208-230/460	T-Stat	24.2	15.44
10-15	3600	215TZ	<b>140641</b>	95	208-230/460	T-Stat	40.0	17.41



# RESILIENT BASE MOTORS • SINGLE PHASE • THREE PHASE

## GENERAL PURPOSE OR FAN & BLOWER SERVICE • MODERATE STARTING TORQUE

### General Specifications:

Industrial quality, resilient (cradle) mounted, capacitor start-type, ball bearing motors for fan and blower service. Moderate starting torque electrical design to reduce stress on fan blades during start-up. Suitable for belt-driven fans or fan-on-shaft applications. Self-ventilated design, may be mounted outside of the fan's airflow.

**Single Phase** - Capacitor-type design has higher energy efficiency rating than split phase, single phase fan and blower motors.

**Third Phase** - For 277-volt, three phase service, the thermally-protected motors listed may be field-reconnected for operation without the thermal overload protector.

### TEFC • SINGLE PHASE RESILIENT BASE

Totally enclosed, fan cooled design makes these motors ideal for replacement in tough agricultural and industrial applications where contaminants cause failure of open drip-proof motors.



HP	RPM 60 Hz	NEMA Frame	Catalogue Number	App. Wgt. (lbs.)	Voltage	Over- load Prot.	F.L. Amps 230V	"C" Dim. (in.)
1/2	1800	56	110025	26	115/208-230	Auto.	4.4	11.96
3/4	1800	56	110026 □	28	115/208-230	Auto.	5.4	12.46
1	1800	56H	111915 □	31	115/208-230	Auto.	6.4	12.96

### TEFC • THREE PHASE RESILIENT BASE

Totally enclosed, fan cooled design makes these motors ideal for replacement in tough industrial applications where contaminants cause failure of open drip-proof designs.



HP	RPM 60 Hz	NEMA Frame	Catalogue Number	App. Wgt. (lbs.)	Voltage	Over- Load Prot.	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (in.)
1/2	1800	56	111917 ● □	25	208-230/460	None	1.8	78.5	11.31
1	1800	56	111918 □	29	208-230/460	None	3.8	77.0	12.46

### DRIP-PROOF • SINGLE PHASE RESILIENT BASE

Drip-proof design and resilient mount. Moderate starting torque. Suitable for general purpose applications.



HP	RPM 60 Hz	NEMA Frame	Catalogue Number	App. Wgt. (lbs.)	Voltage	Over- load Prot.	F.L. Amps 230V	"C" Dim. (in.)
1/4	3600	48	101434#	16	115/208-230	Auto.	2.0	9.38
	1800	48	100109	17	115/208-230	Auto.	2.7	9.89
	1800	48	100111#	17	115/208-230	Auto.	2.7	9.89
1/3	3600	48	101431#	17	115/208-230	Auto.	2.3	9.39
	1800	48	100110	18	115/208-230	Auto.	3.3	9.89
	1800	48	101015#	18	115/208-230	Auto.	3.3	9.89
	1800	S56	100014	19	115/208-230	None	3.3	10.31
	1800	S56	100010	18	115/208-230	Auto.	3.3	10.31
	1800	S56	100063#	19	115/208-230	Auto.	3.3	10.31
1/2	3600	48	101432#	19	115/208-230	Auto.	4.2	10.38
	1800	S56	100015	21	115/208-230	None	4.4	10.81
	1800	S56	100045#	20	115/208-230	Man.	4.4	10.81
	1800	S56	100011	22	115/208-230	Auto.	4.4	10.81
	1800	S56	100064#	20	115/208-230	Auto.	4.4	10.81
3/4	3600	48	101433#	22	115/208-230	Auto.	4.8	10.39
	3600	S56H	100603	26	115/208-230	Auto.	4.9	11.31
	1800	S56H	100016	26	115/208-230	None	5.4	11.81
	1800	S56H	100046	26	115/208-230	Man.	5.4	11.81
	1800	S56H	100047#	25	115/208-230	Man.	5.5	11.31
	1800	S56H	100012	26	115/208-230	Auto.	5.4	11.81
1	3600	S56H	100065#	25	115/208-230	Auto.	5.5	11.81
	3600	56H	110478	28	115/208-230	Auto.	6.0	11.85
	1800	56H	113027	30	115/208-230	None	6.4	11.81
	1800	56H	110007	29	115/208-230	Auto.	6.4	11.81
1 1/2	3600	56H	110054#	32	115/208-230	Auto.	6.4	11.81
	3600	56H	110479	30	115/230	Auto.	8.2	11.82
2	3600	56H	110579 ☆ □	38	115/208-230	Auto.	7.2	12.82
	3600	56H	113633	38	115/208-230	Auto.	10.0	13.82
2	3600	56H	113608 ☆	45	115/208-230	Auto.	10.0	13.81

### DRIP-PROOF • THREE PHASE RESILIENT BASE

Drip-proof design and resilient mount. Moderate starting torque. Suitable for general purpose applications.



HP	RPM 60 Hz	NEMA Frame	Catalogue Number	App. Wgt. (lbs.)	Voltage	Over- Load Prot.	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (in.)
1/2	1800	S56	100145	22	208-230/460	None	2.0	68.0	10.81
	1800	S56H	100796 ♦	22	208-230/460	Auto.	2.0	68.0	11.31
	1800	S56H	100828	22	575	None	0.9	68.0	10.81
3/4	3600	S56H	101641 ♦	20	208-230/460	Auto.	2.4	79.0	11.31
	1800	S56H	100146	25	208-230/460	None	2.8	75.0	11.31
	1800	S56H	100908 ♦	26	208-230/460	Auto.	2.8	75.0	11.81
	1800	S56H	100829	25	575	None	1.2	75.0	11.31
1	3600	56	113895 ♦	25	208-230/460	Auto.	3.2	77.0	10.81
	1800	56	110052	23	208-230/460	None	4.2	78.5	11.31
	1800	56H	111311 ♦	27	208-230/460	Auto.	4.2	78.5	11.31
1 1/2	3600	S56H	111393	31	575	None	1.4	78.5	11.81
	3600	56H	113896 ♦	29	208-230/460	Auto.	4.2	81.5	11.82
	1800	56H	110433	32	208-230/460	None	5.6	78.5	11.81
2	3600	56H	113846 ♦	29	208-230/460	Auto.	5.6	78.5	11.81
	3600	56H	113897 ♦	39	208-230/460	Auto.	5.6	82.9	12.32
3	3600	56H	113847 ♦	34	208-230/460	Auto.	6.2	78.5	12.31
	3600	56HZ	113926 ♦	40	208-230/460	Auto.	7.6	84.0	13.19
3	3600	56HZ	116593 ♦	47	230/460	Auto.	8.6	82.5	14.19

# These motors have a NEMA 1.00 Service Factor, suitable for blower and fan duty.

☆ Capacitor start/capacitor run design for reduced amperage, others are capacitor start/induction run.

● These motors are totally enclosed, non-ventilated.

□ Combination 56 H base motors have mounting holes for NEMA 56 and NEMA 143-5T and a standard NEMA 56 shaft.

♦ Automatic reset overload protection. Reconnectable for 277 volt operation without overload protection.

These motors have NEMA Service Factors except as noted by # which have a 1.0 Service Factor and TEFC motors, which have a 1.15 Service Factor.



**GE COMMERCIAL MOTORS BY REGAL BELOIT DIRECT DRIVE FURNACE & CENTRAL AIR CONDITIONING MOTORS PERMANENT SPLIT CAPACITOR • 5-1/2" DIAMETER • THREE SPEED**

**Features:**

- Reversible Rotation
- Mounting holes in shell for capacitor bracket
- Designed for 370 Volt capacitor (not furnished)
- 4" shaft extension
- Extended clamp screws on shaft end with a ring kit provided
- Ring kit allows both 2-1/4 and 2-1/2 resilient ring mounting
- Automatic thermal overload protection
- Sleeve Bearings



**Applications:**

Designed for continuous air over applications, such as furnace blowers or central air handling units with single shaft requirements

HP	SYN RPM 60 Hz	Catalog Number	Model Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	"C" Dim. (Inches)	Rotation	Speed
1/4	1200	3583	5KCP39EGAA09S	10	115	4.2	9.10	CCW/CW	3
	1200	3584	5KCP39EGAA10S	10	208-230	2.0	9.10	CCW/CW	3
1/3	1200	3585	5KCP39HGAA37T	12	115	6.1	9.40	CCW/CW	3
	1200	3586	5KCP39JGN654T	12	208-230	2.7	9.40	CCW/CW	3
1/2	1200	3587	5KCP39PGN655S	17	115	9.0	10.40	CCW/CW	3
	1200	3588	5KCP39NGN656S	16	208-230	4.3	10.10	CCW/CW	3
3/4	1200	3589	5KCP39NGAA44S	17	115	11.2	10.40	CCW/CW	3
	1200	3590	5KCP39PGN658S	17	208-230	5.0	10.40	CCW/CW	3
1	1200	3595	5KCP395GL854S	19	115	11.8	10.65	CCW/CW	3
	1200	3596	5KCP395GL853S	19	208-230	5.6	10.65	CCW/CW	3

**GE COMMERCIAL MOTORS BY REGAL BELOIT CONDENSER FAN & HEAT PUMP MOTORS PERMANENT SPLIT CAPACITOR • SHAFT UP OR DOWN APPLICATION**

**Features:**

- Ball Bearings
- 26" Motor Leads
- Shaft Slinger
- 6" shaft extension with 2 flats 90 degrees apart
- Designed for a 370 Volt capacitor



**Applications:**

Designed for condenser fan and heat pump units requiring vertical shaft up or vertical shaft down positioning with "belly band" or extended clamp screw mounting

HP	SYN RPM 60 Hz	Catalog Number	Model Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	"C" Dim. (Inches)	Rotation	Notes
1/4	1200	3732	5KCP39FGL114S	10	208-230	1.8	10.30	CCW/CW	5,14
	1200	3736	5KCP39FGL782S	10	460	0.9	10.89	CCW/CW	14
1/3	1200	3733	5KCP39LGL786S	14	208-230	2.3	11.71	CCW/CW	5,14
	1200	3737	5KCP39MGL796S	14	460	1.3	12.31	CCW/CW	14
1/2	1200	3734	5KCP39PGL811S	17	208-230	3.5	12.21	CCW/CW	14
	1200	3738	5KCP39FGL795S	17	460	1.7	12.81	CCW/CW	5,14
3/4	1200	3735	5KCP39SGL938S	20	208-230	4.7	12.71	CCW/CW	14
	1200	3739	5KCP39SGL794S	20	460	2.0	13.31	CCW/CW	14

NOTES: 4 = Sleeve bearing; 5 = Designed for 60° C ambient; 6 = Designed for 65° C ambient; 12 = Designed for 50 or 60 Hz operation; 13 = TENV construction; 14 = Ball bearing.



# HVAC/R QUESTIONS? WE'VE GOT ANSWERS!



Whether you require a replacement motor for an air moving application or a leading edge ECM motor for a new OEM requirement Regal Beloit's AIR-CON Technology HVAC/R Team has the solution for you.

The AIR-CON HVAC/R Team is our group of experienced air moving specialists with sales application knowledge in HVAC/R electric motors and blowers primarily used in:

- residential heating/cooling
- commercial rooftops
- refrigeration/ventilation equipment

The AIR-CON Team is also well versed in related products such as igniters, sheaves and capacitors.

Regal Beloit manufactures industry leading HVAC/R products including Fasco, Genteq, Morrill and Marathon.

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