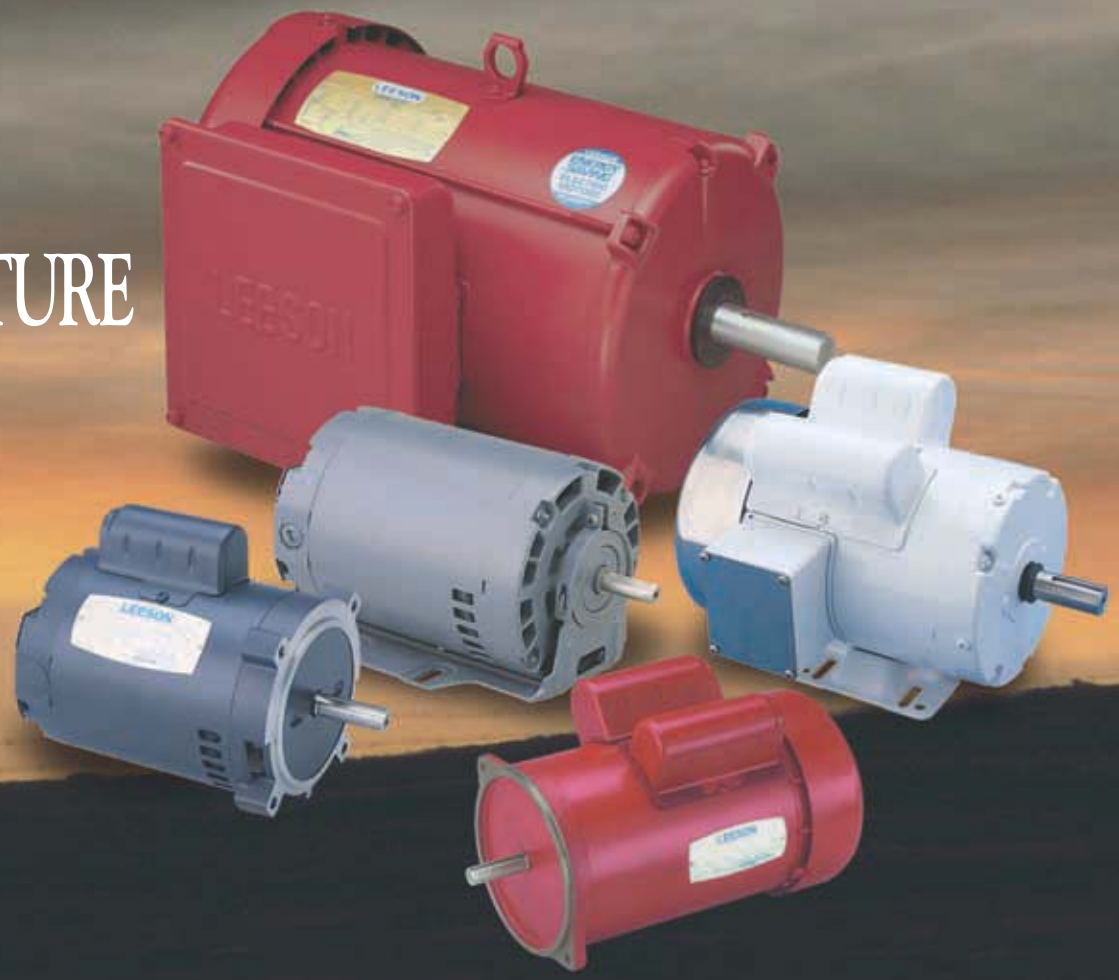
MOTORS FOR AGRICULTURE



LEESON®

ELECTRIC MOTORS, GEARMOTORS AND DRIVES

AGRICULTURAL MOTORS
GENERAL PURPOSE • SINGLE PHASE

FARM DUTY • GENERAL PURPOSE

Heavy duty single phase Hi-Torque Motors designed specifically for severe "farm duty" applications.

Mechanical Features:
Gasketed capacitor housing and conduit boxes provide protection in all environments.
Double shielded ball bearings prelubricated with Exxon POLYREX® EM grease having operating temperature range of –20°F to +350°F and special formulation to provide extra bearing protection.
Rubber boot over manual protector reset button provides weather protection.

Electrical Features:
Low temperature manual overload protector protects against extreme overload.
Class "F" copper windings and varnish.
Capacitor start provides high starting torque with normal starting current.

HIGH TORQUE • RIGID BASE SINGLE PHASE • TEFC

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
1/3	1725	56	**113256**	20	115/208-230	Manual	3.2	10.81
1/2	1725	56	**110086**	22	115/208-230	Manual	4.4	10.81
3/4	1725	56	**110087**	26	115/208-230	Manual	5.4	11.31
1	1725	56	**110088**	30	115/208-230	Manual	7.0	11.81
1½	1725	56H	**110089**☆□	41	115/208-230	Manual	8.6	12.61
	1725	56HZ/ 145T	**113938**■	39	115/208-230	Manual	8.6	13.25
2	1725	56HZ/ 145T	**110090**☆■	43	230	Manual	9.2	13.75
	1740	182T	**131541**†	50	115/208-230	Manual	12.4	14.46
3	1740	184T	**131542**†	83	230	Manual	19.0	16.46
5	1740	184T	**131543**†☆	96	230	Manual	23.0	17.46
7½	1740	215T	**140707**†☆	144	230	Manual	33.6	20.21
10	1740	215T	**140706**†☆	152	230	Manual	40.0	20.71

WATTSAVER® PREMIUM EFFICIENCY HIGH TORQUE • RIGID BASE SINGLE PHASE • TEFC

WATTSAVER® Premium Efficiency Motors provide enhanced operating efficiencies, cooler operating temperatures, and reduced running amperage. See page 15 for complete list of features.

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/3	1725	56	**113765**☆	27	115/208-230	Manual	1.7	76.0	10.81
1/2	1725	56	**113766**☆	30	115/208-230	Manual	2.5	78.0	11.31
3/4	1725	56	**113767**☆	35	115/208-230	Manual	3.2	82.0	11.81
1	1725	56	**113768**☆	37	115/208-230	Manual	4.2	83.0	12.31
1½	1725	56H	**113769**☆□	43	115/208-230	Manual	6.5	84.0	13.31
2	1725	56HZ	**113770**☆■	49	230	Manual	8.2	85.0	14.25

FOR ADDITIONAL WATTSAVER® MOTORS, SEE PAGES 15-18.

HIGH TORQUE C FACE LESS BASE SINGLE PHASE • TEFC

NEMA C Face Motor designed with overspeed protection on mechanical centrifugal starting switch.

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
1/3	1725	56C	**113290**	28	115/208-230	Manual	3.2	10.81
1/2	1725	56C	**110492**	22	115/208-230	Manual	4.4	10.81
3/4	1725	56C	**110493**	29	115/208-230	Manual	5.4	11.31
1	1725	56C	**110494**	33	115/208-230	Manual	7.0	11.81
1½	1725	56C	**110495**☆	43	115/208-230	Manual	8.6	12.31
2	1725	145TC	**120855**†☆	45	230	Manual	9.2	13.75
3	1740	184TC	**131603**†	104	230	Manual	19.0	16.47
5	1740	184TC	**131602**†☆	104	230	Manual	23.0	17.47

1.15 Service Factor, 1 HP and smaller.

EXTRA HI-TORQUE RIGID BASE SINGLE PHASE • TEFC

Extra Hi-Torque rated 5, 7½ and 10 HP Motors produce up to 400% starting torque with all mechanical and electrical features listed above.

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
5	1740	215T	**140203**†☆	119	230	Manual	28.0	18.71
	1740	215TZ	**140223**†☆♦	150	230	Manual	28.0	18.71
7½	1740	215T	**140130**†☆	144	230	Manual	33.6	20.21
	1740	215TZ	**140209**†☆♦	141	230	Manual	33.6	20.21
10	1740	215T	**140414**†☆	154	230	Manual	40.0	20.71

■ Combination 56 HZ base has mounting holes for NEMA 56 and 143-5T and a standard NEMA 145T frame shaft of 7/8" diameter.
□ Combination 56H base has mounting holes for NEMA 56 and 143-5T and a standard NEMA 56 frame shaft.
☆ Capacitor start/capacitor run design for reduced amperage, others are capacitor start/induction run.
† Class F insulated.
♦ These motors have a NEMA 215T base mounting pattern and shaft height of 5.25", with usable length of 3⅜" and diameter of 1⅛" with standard key.

TWO-WINDING VARIABLE TORQUE PSC TYPE FOR SHAFT MOUNTED FAN APPLICATIONS

These fan and blower duty motors are designed for dependable, *energy saving* performance in applications where the fan is mounted on the shaft of the motor. The permanent split capacitor design does not require a centrifugal switch, resulting in higher reliability than on other types of single phase motors. This design is also more energy efficient and less expensive to operate.

These motors may be operated at listed speed or two speed operation may be achieved by using the proper auxiliary switch. They are suitable for variable speed by adjusting the voltage to the motor using a variable voltage control, except as noted by ☒.

Overload protected with an automatic reset protector. Grounding provisions. Totally enclosed, dust tight design, with resilient mounting for quiet operation. Lubricated with quiet running high temperature lubricant. Corrosion resistant finish for tough applications. Because of the inherently low starting torques of this design, these motors are not suitable for belt driven fan applications. They must be mounted within the air stream of the driven fan.

⋆ The useable shaft of this motor is 3/4" longer than NEMA standard to accommodate fan on shaft mountings. 48Z is 1/2" diameter by 2 1/4". 56Z is 5/8" diameter, 2 5/8" long. All have 1" extended through bolts. Except Catalog Numbers 100805 and 100806 which are extended 1/4".
☒ Suitable for single speed operation only.
☐ Combination 56H base motors have mounting holes for NEMA 56 and NEMA 143-5T and a standard NEMA 56 shaft.
① In addition to a rigid base, this motor has provisions for belly band and pedestal fan mount.
② In addition to resilient base, this motor has provisions for belly band and pedestal fan mount.
✓ This split phase start, capacitor run motor is suitable for belt drive within the airflow of the fan.
✪ Shaft is 3/4" by 2"
⁂ Shaft is 5/8" by 2 5/8"

VENTILATION FAN MOTOR SHAFT-MOUNTED • DUST-TIGHT

Totally enclosed, high efficiency, permanent split capacitor motor for direct drive exhaust ventilation fans in poultry and livestock houses. Fully gasketed, dust-tight construction with sealed bearings and shaft slinger. Automatic thermal overload protector. Extended through-bolts for mounting, no base. Built-in terminal panel for quick, easy connection. Grounding provision.

Because of the inherently low starting torque of this design, this motor is not suitable for belt-driven fan applications. It must be mounted in the air stream of the fan for cooling.

SINGLE PHASE • PSC • TEAO • RESILIENT BASE

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
1/4	1625	48Z*	100803	19	115/230	Auto	1.6	11.13
	1075	48Z*	100824	20	115/230	Auto	1.5	11.13
	1075	S56Z*	100805	22	115/230	Auto	1.5	11.56
1/3	1625	48Z*	100804	21	115/230	Auto	1.9	11.13
	1625	S56H	100767	22	115/230	Auto	1.9	11.31
	1625	56HY	111348②	24	115/230	Auto	1.7	13.44
	1075	48Z*	100825	25	115/230	Auto	1.8	11.13
	1075	S56HZ*	100806	27	115/230	Auto	1.8	12.56
1/2	1625	56HZ*	111323	30	115/230	Auto	2.6	12.56
	1625	S56H	100768	36	115/230	Auto	2.5	11.81
	1075	48Z	101645	33	115/230	Auto	3.2	11.13
	1075	56HZ*	111321☐	37	115/230	Auto	3.0	13.56
	850	48YZ*	M099836☒✪	24	115/230	Auto	3.0	11.55
	825	56HZ*	111919☐☒	40	115/230	Auto	3.2	13.56
3/4	1625	56HZ*	111324	34	115/230	Auto	3.5	13.06
	1625	56H	111266	36	115/230	Auto	3.5	12.31
	1075	56HZ*	111322☐☒	44	115/230	Auto	4.0	13.56
1	1625	56HZ	111267	39	115/230	Auto	4.4	12.81

These motors have a 1.0 Service Factor

SINGLE PHASE • PSC TYPE • RIGID BASE TOTALLY ENCLOSED AIR OVER (TEAO)

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
1/4	1750	48Y	101252☒	19	115/208-230	Auto	1.6	10.06
	1625	48Y	100699A	19	115/230	Auto	1.6	11.06
	1625	48Y	M099799	19	115/230	Auto	1.5	11.06
	1075	48Y	M099260	21	115/230	Auto	1.2	11.55
1/3	1725	48Y	M090253☒	22	115/230	Auto	1.8	11.55
	1750	48Y	101253☒	22	115/208-230	Auto	2.2	10.06
	1625	48Y	100700	22	115/230	Auto	1.9	11.56
	1625	56Y	111202①	24	115/230	Auto	1.7	12.00
	1625	48Y	M099800	22	115/230	Auto	1.8	11.55
	1075	48Y	M099261	21	115/230	Auto	1.5	12.55
	1140	S56Y	100604	23	115/230	Auto	1.8	12.56
1/2	1750	S56Y	101176✓☒	26	115/230	Auto	3.2	11.06
	1625	48Y	100701	29	115/230	Auto	2.5	12.06
	1625	48Y	M099801	29	115/230	Auto	2.5	12.55
	1060	48Y	M099946	26	115/230	Auto	2.5	13.55
3/4	1060	48Y	M099847	36	115/230	Auto	3.6	13.56

SINGLE PHASE • TEAO • THRU BOLT MOUNT

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
1/3	1635	48Y	M090085	20	115/230	Auto	1.8	11.55
1/2	1635	48Y	M090086	22	115/230	Auto	2.5	12.55
	825	56Z	114620☒	35	115/230	Auto	3.2	12.63
	850	48Y	M099250⁂☒	24	115/230	Auto	3.0	11.55

SINGLE & THREE PHASE • TEAO • C FACE LESS BASE

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	Phase	F.L. Amps 230V	"C" Dim. (Inches)
1/2	850	56C	M099251☒	24	115/230	Auto	1	3.0	11.55
1	850	56C	M009644☒	45	230	Auto	1	4.6	12.81
1/2	850	56C	116201	35	208-230/460	…	3	3.0	10.31
1	850	56C	116202	45	208-230/460	…	3	5.2	12.90

AGRICULTURAL MOTORS
SINGLE AND THREE PHASE

AG FAN MOTORS BELT-DRIVEN • DUST-TIGHT

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.

SINGLE PHASE • CAPACITOR START • TEAO • RIGID BASE

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
3/4	3450	56	**111332✓**	27	115/230	None	5.0	10.88
1	3450	56	**111333✓**	29	115/230	None	6.0	10.88
1½	3450	56	**111949✓**	32	115/230	None	8.5	11.38
	3450	143TZ	**120374®**	31	115/230	None	8.5	11.88
2	3450	145TZ	**120375®**	41	230	None	10.0	13.38
3	3450	145T	**120376☆**	45	230	None	13.6	13.88

THREE PHASE • TEAO • RIGID BASE

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
3/4	3450	56Z	**111334✓**	21	208-230/460	2.4	72.0	9.88
1	3450	56Z	**111335✓**	22	208-230/460	3.2	77.1	9.88
1½	3450	143TZ	**120377®**	31	208-230/460	4.2	80.3	10.88
2	3450	145TZ	**120378®**	34	208-230/460	5.6	78.8	11.88
3	3450	145T	**120379®**	38	230/460	8.0	80.0	12.34

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 34" leads exiting the motor at 12 o'clock.

SINGLE PHASE

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
5-7	3450	182TZ	**131847**	91	230	T-Stat	27.2-35.0	16.44
7.5-10	3450	182TZ	**131848**	95	230	T-Stat	31.0-42.0	16.44
10-15	3450	215TZ	**140640**	159	230	T-Stat	39.5-61.5	20.42

THREE PHASE

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
5-7.5	3450	184TZ	**131849**	70	208-230/460	T-Stat	19.0	13.94
7.5-10	3450	184TZ	**131850**	85	208-230/460	T-Stat	24.2	15.44
10-15	3450	215TZ	**140641**	95	208-220/440	T-Stat	40.0	17.41

GRAIN STIRRING MOTORS DUST-TIGHT

Dust-Tight Motors designed to operate inside agricultural storage bins for stirring grain, corn and other agricultural products.

Mechanical Features:

External cast aluminum cooling fan at shaft end keeps grain from obstructing fan operation. Prelubricated double shielded ball bearings packed with Exxon POLYREX® EM grease (temperature range –20°F to +350°F). Totally enclosed construction with gasketed conduit box and capacitor cases. Moisture drain hole in endshield opposite shaft for vertical shaft up mounting. Rugged 205 bearing shaft-end. Shaft is 7/8" diameter, useable length of 15/16". "BA" dimension is 3 5/8".

Electrical Features:

Energy-saving, extra high torque designs.

SINGLE PHASE • RIGID BASE • TEFC

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
1½	1725	56HZ	**111330☆**	42	115/208-230	Man.	8.6	12.31

THREE PHASE • RIGID BASE • TEFC

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
1½	1725	56HZ	**111329**	38	208-230/460	5.4	80.0	11.81

These Grain Stirring motors have NEMA Service Factor of 1.0

✓ Standard 5/8" 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.
® 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.

FAN & BLOWER MOTORS

SINGLE PHASE • COMMERCIAL DUTY

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	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 115V	Service Factor	"L" Dim. (Inches)	"C" Dim. (Inches)
1/4	1725	48	**191868**	15	115/230	Auto	4.6	1.35	2.61	9.37
1/3	1725	48	**191869**	17	115/230	Auto	5.8	1.35	3.12	9.88
1/2	1725	48	**191870**	19	115/230	Auto	8.4	1.25	3.63	10.39

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.)

Sleeve or ball bearings. NEMA Service factors. Resilient "cradle" style base. 48Y frame has both 48 and 56 frame mounting holes.

OPEN DRIP-PROOF • RESILIENT BASE • AUTOMATIC OVERLOAD

HP	RPM 60 Hz	NEMA Frame	Bearing Type	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 115V	"C" Dim. (Inches)
1/4	1725	48YZ	Sleeve	**M900195**	13	115	Auto	5.0	9.72
1/3	1725/1140	56	Ball	**M900277**	20	115	Auto	5.3/2.9	10.72
	1725	48YZ	Sleeve	**M900196**	15	115	Auto	6.1	9.72
1/2	1725/1140	56	Ball	**M900599**	30	115	Auto	8.1/4.5	11.85
	1725	48YZ	Sleeve	**M900197**	20	115	Auto	7.2	10.72

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	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 115V	% F.L. Eff.	"C" Dim. (Inches)
1/4	1725	48	**M090602**	15	115	Auto	2.5	71.0	9.88
1/3	1725	48	**M090405**	19	115	Auto	3.2	75.0	9.88
1/2	1725	48	**M090585**	22	115	Auto	4.6	76.0	10.50

Premium efficiency FHP® brand 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

PEDESTAL FAN MOTORS

LEESON FHP Commercial Duty totally enclosed, air over 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.

Motors are CSA/NRTL/C. Recognized for both the U.S. and Canadian markets.

SINGLE PHASE • PSC TYPE • TEAO • YOKE MOUNTED AUTOMATIC OVERLOAD • 1.0 S.F.

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 115V	"U" Dim.	"C" Dim. (Inches)
1/4	1650	48Y	**191872**	14	115/230	Auto	2.6	0.500	10.95
	1650	48Y	**191908**	14	115/230	Auto	2.6	0.625	10.95
	*1140	48Y	**191891**	22	115/230	Auto	2.4	0.500	10.95
	*1140	48Y	**191909**	25	115/230	Auto	2.4	0.625	10.95
1/3	1650	48Y	**191871**	15	115/230	Auto	3.4	0.500	10.95
	1650	48Y	**191910**	15	115/230	Auto	3.4	0.625	10.95
	*1140	48Y	**191892**	23	115/230	Auto	3.0	0.500	11.46
	*1140	48Y	**191911**	26	115/230	Auto	3.0	0.625	11.46
1/2	1650	48Y	**191873**	24	115/230	Auto	4.6	0.500	10.95
	1650	48Y	**191875**	24	115/230	Auto	4.6	0.625	10.95
	*1140	48Y	**191893**	26	115/230	Auto	5.0	0.500	11.93
	*1140	48Y	**191912**	29	115/230	Auto	5.0	0.625	11.93

*Two speed achievable by reconnecting 115V power to 230V connection (67% of rated speed). Actual speed dependent upon fan design.

CATFISH POND MOTORS

Specially designed for aeration systems used on aquaculture ponds, these motors are designed for dependable outdoor applications. Typically C-face connected to a right-angle gearbox and installed on a floating aeration platform.

Hi-torque motors are epoxy-painted with a corrosion-resistant interior coating. Stainless hardware, fan guard, lifting lug, and conduit box cover for maximum protection against corrosion. Drain holes in the conduit box and in four positions on each end of the frame to purge condensate and moisture that may enter the motor. Ball bearings are double-sealed and lubricated with Exxon POLYREX® EM high temperature, moisture resistant lubricant.

SINGLE AND THREE PHASE • C FACE WITH BASE • TEFC

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Phase	F.L. Amps 460V	"C" Dim. (Inches)
10	1740	215TC	**140705***	204	230	1	40.0	20.71
	1740	215TC	**G140709**	169	208-230/460	3	26.0	18.71

*Single phase motor has manual reset overload protector.

IRRIGATION BOOSTER PUMP MOTOR

Threaded-shaft jet pump motor for shaft-down mounting. TEFC with rain canopy. Locked bearing on shaft end, for longer motor life. Neoprene shaft flinger repels moisture. Drain holes in C face and conduit box. Epoxy paint and fully gasketed. Stator impregnated with extra-heavy varnish system.

THREE PHASE • IRRIGATION BOOSTER • TEFC

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 460V	% F.L. Eff.	"C" Dim. (Inches)
2	3450	56J	**112991**	33	460	3.0	78.0	14.35

IRRIGATION DRIVE MOTORS

Specially designed for pivoting irrigation systems exposed to severe weather environments and operating conditions.

Mechanical Features:
Double sealed ball bearings prelubricated with Exxon POLYREX® EM grease having an operating temperature range of –20°F to +350°F and special formulation to provide extra long life and moisture resistance. Moisture drain holes at shaft-end of motor. Die cast aluminum conduit box fully gasketed. Epoxy paint for corrosion resistance. Externally fan cooled with rain canopy over cooling fan, for shaft down mounting.

Electrical Features:
"Extra high" starting torque, Class "F" copper windings. Specially treated windings for excessive moisture conditions. Capable of multiple starts and stops. Automatic protector for overload and low voltage protection.

C FACE LESS BASE • THREE PHASE • TEFC

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1	1725	56C	**111304**	30	460	2.4	75.0	12.34

These Irrigation Drive motors have a 1.25 Service Factor.

MILK TRANSFER PUMP MOTOR

General Specifications:
Totally enclosed non-ventilated motor. Direct replacement for Surge milk pumps, Babson motor #27732.

Mechanical Features:
Special moisture resistant design with double sealed ball bearings. Bearings and bearing cavities packed with high temperature moisture resistant lubricant. Drain holes to expel moisture and water. Epoxy paint.

Electrical Features:
Permanent split capacitor design for reliability and improved efficiency. High temperature insulation. Class B insulation system. Requires 30 MFD, 370 VAC capacitor, separately mounted—not supplied.

SINGLE PHASE • RIGID BASE • TENV

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
1/2	3450	56CZ	**113939**	42	230	None	4.5	13.11

INDUSTRY-AG • 115-208/230V • TEFC 1725 RPM • HIGH TORQUE RIGID BASE

Industry-Ag is a new line of heavy duty single phase hi-torque motors built to withstand the tough applications in industry and agriculture.

Mechanical Features: Gasketed capacitor housing and conduit boxes provide protection in all environments. Double sealed ball bearings provide extra bearing protection.

Rubber boot over manual protector reset button provides weather protection.

Electrical Features: Manual thermal protector protects against overload. Capacitor start provides high starting torque with normal starting current.

RIGID BASE • 115-208/230V • TEFC

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (in.)
1/3	1725	56	M002256	25	115-208/230	Manual	3.2	10.81
1/2	1725	56	M009086	26	115-208/230	Manual	4.4	10.81
3/4	1725	56	M009087	29	115-208/230	Manual	5.4	11.31
1	1725	56	M009088	32	115-208/230	Manual	7.0	11.81
C Flange		56	M064076	—	—	—	—	—

C FACE LESS BASE • 115-208/230 • TEFC

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (in.)
1/3	1725	56C	M002290	25	115-208/230	Manual	3.2	10.81
1/2	1725	56C	M009492	26	115-208/230	Manual	4.4	10.81
3/4	1725	56	M009493	29	115-208/230	Manual	5.4	11.31
1	1725	56	M009494	32	115-208/230	Manual	7.0	11.81

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.

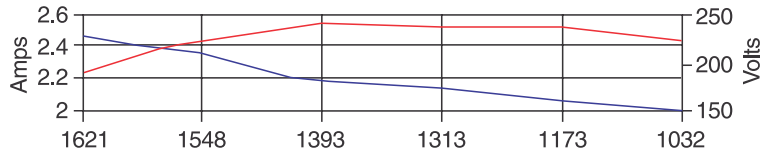
Permanent split capacitor type design eliminates the centrifugal switch for "three phase" type reliability.

Automatic thermal overload protection.

TEAO • RIGID BASE • EXTENDED THRU-BOLTS

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	Shaft Length (in.)
1/4	1625	48Y	M099899	18	115-208/230	Auto	1.3	2
	1060	48Y	M099460	21	115/208-230	Auto	1.3	2
1/3	1625	48Y	M099900	19	115-208/230	Auto	1.8	2
	1060	48Y	M099461	22	115/208-230	Auto	1.9	2
1/2	1650	48Y	M099901	22	115-208/230	Auto	2.6	2
	1060	48Y	M099462	25	115/208-230	Auto	2.8	2

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



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

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.

HIGH-EFFICIENCY • SINGLE PHASE

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Eff.	Overload Protection	F.L. Amps 230V
3/4	1725	56H	M009581	30	115/208-230	82	Auto	3.4
1	1725	56H	M009782	37	115/208-230	85	Auto	4.3
1½	1725	56H	M009594	39	115/208-230	78	Auto	6.8

POULTRY MOTORS
SINGLE AND THREE PHASE

FEED-AUGER DRIVE MOTORS DUST-TIGHT

Dust-tight, capacitor start motor with your choice of field proven electronic or protected mechanical starting switch—both eliminate damage caused when motor is over-speeded by obstructed auger.

Ball bearing, heavy duty industrial quality designs for high overload capacity. Side mounted conduit box. Flange mounts directly to drive assembly. Fully gasketed to keep out feed dust. Has screw driver slot in rear shaft. Continuous duty, with manual thermal overload protection. **Motors of 3/4 HP and less in the two adjacent charts have shaft of ½" diameter x 1½" length, with flat; motors 1 HP and larger have ⅝" diameter x 1.97" length, with key.**

SINGLE PHASE • TEFC • 60 HERTZ

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
1/3	1725	48YZ	**101159**	21	115/230	Manual	3.5	11.28
	1725	48Y	**101435**⑨	21	115/230	Manual	3.5	11.28
1/2	1725	48YZ	**101120**	22	115/208-230	Manual	4.0	10.72
	1725	48Y	**101436**⑨	22	115/208-230	Manual	4.0	10.72
3/4	1725	48YZ	**101119**	24	115/208-230	Manual	5.4	11.28
	1725	48YZ	**101437**⑨	28	115/230	Manual	5.4	11.78
1	1725	56Y	**112615**	35	115/230	Manual	7.0	12.11
	1725	56NY	**113302**⑨	35	115/208-230	Manual	7.0	12.61
1½	1725	56NY	**113280**☆	47	115/208-230	Manual	6.5	13.62
	1725	56NY	**113301**☆⑨	44	115/230	Manual	6.5	13.62

SINGLE PHASE • TEFC • 50 HERTZ

HP	RPM 50 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 220V	"C" Dim. (Inches)
1/2	1425	48Y	**101643**⑨	26	110/220	Manual	4.2	11.78
3/4	1425	48Y	**101644**⑨	30	110/220	Manual	5.8	12.78
1	1425	56Y	**113906**⑨	39	110/220	Manual	6.4	12.61
1½	1425	56Y	**113907**⑨	48	110/220	Manual	8.6	13.61

HATCHERY AND INCUBATOR FAN MOTORS

Cat. No. 101341

Cat. No. 114102

SINGLE PHASE • TEAO

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Over-load Prot.	F.L. Amps 230V	"C" Dim. (Inches)
1/4	1625	48Y	**101341**	17	115/230	Auto	1.6	10.31
1/2-0.22	1725/1140	56H	**114102**	33	115	Auto	⁂ 9.3-5.6	11.81

General Specifications:

Capacitor-type replacement motors for hatchery and incubator fan motors.

Catalog number 101341 is a permanent split capacitor motor for fan on shaft incubator fans. Band mounted, with 1" long extended through bolts for fan shroud. Shaft diameter ½" by 2¼", with full length flat. Connections in end of motor through ½"-14 NPT tap. UL Listed thermal overload.

NOTE: Cat.#101341 requires separately mounted 7.5 MFD, 370 VAC—not supplied unless requested. **Capacitor Part number 003014.09**

Catalog number 114102 is a two-speed motor, dust-tight and totally enclosed for belt driven hatchery cooling fans. Resilient base. With UL Listed automatic thermal overload.

Mechanical Features:

Double shielded ball bearings permanently lubricated with Exxon POLYREX® EM lubricant having a temperature range of –40°F to +320°F and special formulation for extra long life and moisture resistance.

FEATHER PICKER MOTORS

Motors with the dimensions to replace the MEYN drive motor. Phosphatized or stainless, drilled and tapped metric shaft for easy mounting. Special duty rating with extra high breakdown torques for superior performance on this demanding application. See 1050 Catalog for complete listing of WASHGUARD® features.

Totally enclosed fan cooled construction, sealed bearings, condensate drains, USDA approved food-safe tough white epoxy finish.

THREE PHASE • TEFC

HP/KW	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
2	1740	145T	**G121191**	46	208-230/460	6.0	84.0	14.25
2❖	1140	184TZ	**G131575**	84	230/460	7.2	86.5	15.96
2/1.5❖	1140	112M◗	**G131635**	84	230/460	7.2	86.5	15.96
3	1740	56HZ	**115751**■	45	208-230/460	8.6	82.5	14.25

Note: Catalog Number 115751 has a 303 stainless steel shaft.

■ Combination 56HZ base has mounting holes for NEMA 56 and 143-5T and a standard NEMA 145T frame shaft of 7/8" diameter.
❖ These motors have a 1.5 continuous duty service factor, 3 HP continuous.
◗ IEC frame. See 1050 catalog for dimensions.
☆ Capacitor start/capacitor run design for reduced amperage, others are capacitor start/induction run.
⑨ Mechanical centrifugal starting switch with overspeed protection, others have electronic switch.
⁂ F.L. Amps listed are for high speed and low speeds, respectively, at 115 volts.

Catalog numbers in green are EPACT motors.

PRESSURE WASHER PUMP MOTORS
LOW AMPERAGE DESIGN

Motors specially suited for hot or cold pressure washer applications and other single phase installations requiring minimum starting and running amperages. Capacitor start, capacitor run construction for reduced amperage.

Mechanical Features:

Double shield ball bearings prelubricated with Exxon POLYREX® EM lubricant, having operating temperature range of -20°F to +350°F and special formulation to provide extra long life and moisture resistance. Dynamically balanced rotor and shaft assembly.

Electrical Features:

High efficiency reduced amperage energy saving designs. Stator impregnated with extra heavy varnish system. High temperature copper magnet wire for high overload capacity. Capacitor start/ capacitor run design for reduced amperage. Grounding provision in conduit box. Manual reset overload protector protects against automatic resets. High overload capacities provided by service factor.

RIGID BASE • SINGLE PHASE • DRIP-PROOF

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
3/4	1725	S56	101544☆	28	115/208-230	Manual	3.8	10.94
1	1725	56	113630☆	31	115/208-230	Manual	5.3	10.84
1½	3450	56	113631☆	36	115/208-230	Manual	6.7	10.84
	1725	56H	113266☆☐	42	115/208-230	Manual	6.7	12.38
2	3450	56	113632☆	36	115/208-230	Manual	8.6	11.34
3	1740	184T	131851	72	208-230	Manual	13.7	15.22
5	1740	184T	131852	83	208-230	Manual	24.1	16.22

RIGID BASE • SINGLE PHASE • TEFC

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
3	1740	184T	131855	88	230	Manual	13.7	16.86
5	1740	184T	131856	95	230	Manual	21.0	17.86

C FACE WITH BASE • SINGLE PHASE • DRIP-PROOF

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
1½	1725	56HC	113700☆☐	38	115/208-230	Manual	7.2	11.84
2	1725	56HC	113281☆☐	45	115/208-230	Manual	8.6	12.88
3	1740	184TC	131853	87	208-230	Manual	15.4	15.96
5	1740	184TC	131854	97	208-230	Manual	24.1	16.96

C FACE WITH BASE • SINGLE PHASE • TEFC

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
1½	3450	56C	115024☆	35	115/208-230	Manual	6.7	12.31
2	3450	56HC	114995☆	42	115/208-230	Manual	9.2	13.31
3	3450	56HC	115048☆	53	208-230	Manual	14.0	13.81
	1740	184TC	131857	104	230	Manual	13.7	17.61
5	1740	184TC	131858	102	230	Manual	21.0	18.72

☆ Capacitor start/capacitor run design for reduced amperage, others are capacitor start/induction run.
☐ Combination 56H base motors have mounting holes for NEMA 56 and NEMA 143-5T and a standard NEMA 56 shaft.

INSTANT REVERSING MOTORS

PARKING GATES, DOOR OPERATORS & SLIDE GATES

General Specifications:

Specially designed motors for use on "instant-reversing" parking gates, doors, slide gates, or other moderate starting torque instant reversing applications. Capable of frequent reversing service.

Features (Resilient Base and C Face):

Instant "plug-reversing" with simple three-wire connection. Permanent split capacitor design offering low inrush and full load amps. Manual reset overload protector. Starting torque approximately 150% of full load, not suitable for hard to start loads.

Features (Rigid Base):

Capacitor start, induction run motors with solid state, instant reversing switch. Manual reset overload protector.

RESILIENT BASE • SINGLE PHASE • DRIP-PROOF

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 115V	"C" Dim. (Inches)
1/3	1625	S56	191742	18	115	Manual	4.0	10.31
1/2	1625	S56H	100802	24	115	Manual	6.0	11.31
3/4	1625	56H	113642	33	115	Manual	8.2	11.31

C FACE LESS BASE • SINGLE PHASE • DRIP-PROOF

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 115V	"C" Dim. (Inches)
1/3	1625	S56C	102017	18	115	Manual	4.4	9.34
1/2	1625	S56C	102021	22	115	Manual	6.0	10.38

RIGID BASE • SINGLE PHASE • TEFC

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
3/4	1725	56	114932	30	115/208-230	Manual	5.4	11.31
1	1725	56	114933	30	115/208-230	Manual	6.4	11.81

SINGLE PHASE MOTORS

RIGID BASE • CAPACITOR START • GENERAL PURPOSE




DRIP-PROOF

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
1/12	1725	…	…	…	…	…	…	…
1/8	1725	…	…	…	…	…	…	…
1/6	1725	…	…	…	…	…	…	…
	1725	…	…	…	…	…	…	…
	1140	…	…	…	…	…	…	…
1/4	3450	…	…	…	…	…	…	…
	1725	…	…	…	…	…	…	…
	1725	48	**101423**	15	115/208-230	Manual	2.7	8.50
	1725	48	**100115**	16	115/208-230	Auto	2.7	8.50
	1725	S56	**100000**	17	115/208-230	Auto	2.7	9.38
	1140	…	…	…	…	…	…	…
	1140	…	…	…	…	…	…	…
1/3	3450	…	…	…	…	…	…	…
	3450	S56	**100336**	26	115/208-230	None	2.5	9.38
	1725	…	…	…	…	…	…	…
	1725	…	…	…	…	…	…	…
	1725	48	**100116**	18	115/208-230	Auto	3.1	9.00
	1725	S56	**100006**	17	115/208-230	None	3.1	9.38
	1725	S56	**100588**	17	115/208-230	Manual	3.1	9.38
	1725	S56	**100001**	18	115/208-230	Auto	3.1	9.38
	1140	…	…	…	…	…	…	…
	1140	56	**110001**	30	115/208-230	None	3.9	10.88
1/2	3450	48	**100184**	19	115/208-230	None	3.4	9.50
	3450	S56	**100337**	20	115/208-230	None	3.4	9.88
	3450	S56	**100052**	21	115/208-230	Manual	3.4	9.88
	1725	48	**100338**	20	115/208-230	None	4.4	9.50
	1725	S56	**100007**	21	115/208-230	None	4.4	9.88
	1725	S56	**100004**	21	115/208-230	Manual	4.4	9.88
	1725	S56	**100002**	20	115/208-230	Auto	4.4	9.88
	1140	56	**110002**	34	115/208-230	None	5.0	11.38
3/4	3450	S56	**100340**	24	115/208-230	None	4.8	10.88
	3450	S56	**100053**	24	115/208-230	Manual	4.8	10.88
	1725	S56	**100008**	26	115/208-230	None	5.4	10.63
	1725	S56	**100005**	26	115/208-230	Manual	5.4	10.63
	1725	S56	**101544**☆	26	115/208-230	Manual	3.8	10.88
	1725	S56	**100003**	26	115/208-230	Auto	5.4	10.63
	1140	56H	**110003**□	44	115/208-230	None	6.4	12.88
1	3450	56	**110360**	30	115/208-230	None	6.0	10.88
	3450	56	**110097**	29	115/208-230	Manual	6.0	10.88
	1725	56	**110004**	30	115/208-230	None	6.4	10.88
	1725	56	**110167**	38	115/208-230	Manual	6.4	10.88
	1725	56	**113630**☆	40	115/208-230	Manual	5.3	10.88
	1725	56	**110000**	31	115/208-230	Auto	6.4	10.88
	1725	143T	**120044**	38	115/208-230	None	6.4	11.13
	1725	143T	**120003**	38	115/208-230	Manual	6.4	11.13
	1725	143T	**120000**	38	115/208-230	Auto	6.4	11.13
	1140	…	…	…	…	…	…	…

TOTALLY ENCLOSED FAN COOLED (TEFC)

NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
42	**092111**	14	115/208-230	None	1.1	8.94
42	**092114**	16	115/208-230	None	1.6	9.94
42	**092116**	17	115/208-230	None	2.1	9.44
48	**102012**	18	115/208-230	None	1.7	9.44
48	**102013**	23	115/208-230	None	1.2	10.44
42	**092112**	18	115/208-230	None	2.1	9.94
48	**102014**	20	115/208-230	None	2.7	9.44
48	**101446**✣	18	115/208-230	Manual	2.7	9.44
…	…	…	…	…	…	…
…	…	…	…	…	…	…
48	**102015**	26	115/208-230	None	3.2	11.44
56	**114617**	30	115/208-230	None	2.8	11.81
48	**102016**	21	115/208-230	None	2.5	9.44
…	…	…	…	…	…	…
48	**100955**	19	115/208-230	None	3.1	9.94
48	**102018**	20	115/208-230	Manual	3.1	9.94
…	…	…	…	…	…	…
56	**113635**✣	26	115/208-230	None	3.2	10.81
56	**114619**	29	115/208-230	Manual	3.2	10.81
56	**114613**	29	115/208-230	Auto	3.2	10.81
48	**102019**	32	115/208-230	None	3.7	11.94
56	**110009**	33	115/208-230	None	3.6	12.31
48	**102020**	27	115/208-230	None	3.4	10.44
56	**110399**	25	115/208-230	None	3.6	10.81
56	**110141**	26	115/208-230	Manual	3.6	10.81
48	**100956**	22	115/208-230	None	4.4	10.44
56	**110012**✣	25	115/208-230	None	4.4	10.81
56	**110021**✣	27	115/208-230	Manual	4.4	10.81
56	**110016**✣	25	115/208-230	Auto	4.4	10.81
56	**110011**	39	115/208-230	None	4.9	12.81
56	**110276**	28	115/208-230	None	5.0	11.31
56	**110108**	28	115/208-230	Manual	5.0	11.31
56	**110013**✣	30	115/208-230	None	5.4	11.31
56	**110022**✣	30	115/208-230	Manual	5.4	11.31
…	…	…	…	…	…	…
56	**110017**✣	30	115/208-230	Auto	5.4	11.31
56H	**110400**☆□	43	115/208-230	None	5.3	13.31
56	**110059**	30	115/208-230	None	6.0	11.81
56	**110142**	31	115/208-230	Manual	6.0	11.81
56	**110209**✣	34	115/208-230	None	7.0	11.81
56	**110023**✣	34	115/208-230	Manual	6.4	11.81
…	…	…	…	…	…	…
56	**110018**✣	31	115/208-230	Auto	6.4	12.31
143T	**120025**✣	34	115/208-230	None	6.4	12.75
143T	**120008**✣	38	115/208-230	Manual	6.4	12.75
…	…	…	…	…	…	…
145T	**120043**☆	47	115/230	None	6.7	14.25

□ Combination 56H base motors have mounting holes for NEMA 56 and NEMA 143-5T and a standard NEMA 56 shaft.
☆ Capacitor start/capacitor run design for reduced amperage, others are capacitor start/induction run.
✣ These totally enclosed single phase motors have 1.15 Service Factors.

DRIP-PROOF

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
1½	3450	56	**110361**	29	115/208-230	None	8.6	10.88
	3450	56	**110110**	29	115/208-230	Manual	8.6	10.88
	3450	56	**113631**☆	36	115/208-230	Manual	6.7	11.38
	3450	143T	**120107**	32	115/208-230	None	8.6	11.28
	1725	56H	**110005**☆□	45	115/208-230	None	8.6	11.88
	1725	56H	**110006**☆□	45	115/208-230	Manual	8.6	11.88
	1725	56H	**113266**☆□	42	115/208-230	Manual	6.7	12.38
	1725	…	…	…	…	…	…	…
	1725	145T	**120042**☆	40	115/208-230	None	8.6	12.28
	1725	145T	**120004**☆	39	115/208-230	Manual	8.6	12.28
	1725	145T	**120001**☆	45	115/208-230	Auto	8.6	12.28
	1140	…	…	…	…	…	…	…
2	3450	56	**110363**	38	115/208-230	None	12.0	11.88
	3450	56	**110362**	38	115/208-230	Manual	12.0	12.38
	3450	56	**113632**☆	38	115/208-230	Manual	8.6	11.38
	3450	145T	**120106**	40	115/208-230	None	12.0	12.28
	3450	…	…	…	…	…	…	…
	1725	145T	**120067**☆	47	115/230	None	10.5	13.28
	1725	145T	**120879**☆	47	115/208-230	Manual	8.6	13.31
	1725	182T	**131515**	64	115/208-230	None	12.4	13.19
	1725	182T	**131536**	63	115/208-230	Manual	12.4	13.19
	1725	182T	**131535**	58	115/208-230	Auto	12.4	13.19
3	3450	…	…	…	…	…	…	…
	3450	182T	**131636**	57	115/208-230	None	16.0	14.69
	1725	184T	**131534**	75	115/230	None	16.8	14.19
	1725	184T	**131561**	75	115/230	Manual	16.8	14.19
	1725	184T	**131530**	75	115/230	Auto	16.8	14.19
5	3450	184T	**131616**	70	115/208-230	None	24.0	15.69
	1725	184T	**131537**☆	82	230	None	21.0	14.69
	1725	184T	**131560**☆	82	208	None	23.2	14.69
	1725	184T	**131622**☆	85	230	Manual	21.0	14.69
7½	1740	215T	**140155**☆†	131	230	None	36.0	17.25
10	1740	215TZ	**140311**☆†✓	166	230	None	43.0	19.75
	1740	…	…	…	…	…	…	…

TOTALLY ENCLOSED FAN COOLED (TEFC)

NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
56	**110094**	34	115/208-230	None	8.5	12.31
56	**110109**	34	115/208-230	Manual	8.5	12.31
…	…	…	…	…	…	…
143T	**120130**	34	115/208-230	None	8.5	13.25
56H	**110253**☆□	39	115/208-230	None	8.6	12.81
56H	**113333**☆□	40	115/208-230	Manual	8.6	12.81
…	…	…	…	…	…	…
56H	**110019**☆□	43	115/208-230	Auto	8.6	12.81
145T	**120026**☆	42	115/208-230	None	8.6	13.25
145T	**120009**☆	40	115/208-230	Manual	8.6	13.25
…	…	…	…	…	…	…
184T	**131526**	76	115/208-230	None	11.0	15.38
56H	**110352**□	44	115/208-230	None	10.0	13.31
56H	**110402**□	44	115/208-230	Manual	10.0	13.31
…	…	…	…	…	…	…
145T	**120036**	44	115/208-230	None	10.0	13.75
145T	**120395**	44	115/208-230	Manual	10.0	13.75
145T	**120867**☆	45	115/208-230	Manual	9.2	13.75
…	…	…	…	…	…	…
182T	**131509**	70	115/208-230	None	12.4	13.47
…	…	…	…	…	…	…
…	…	…	…	…	…	…
145T	**120341**☆	48	230	None	14.0	13.75
182T	**131637**	63	115/208-230	None	16.0	15.96
184T	**131533**	91	115/230	None	16.8	15.47
…	…	…	…	…	…	…
…	…	…	…	…	…	…
184T	**131549**☆	81	115/208-230	None	24.0	16.96
184T	**131538**†☆	103	230	None	23.0	16.47
…	…	…	…	…	…	…
…	…	…	…	…	…	…
215T	**140120**†☆	169	230	None	33.6	20.13
213T	**140581**	202	230	None	40.0	20.63
215T	**140414**†☆	202	230	Manual	40.0	20.63

□ Combination 56H base motors have mounting holes for NEMA 56 and NEMA 143-5T and a standard NEMA 56 shaft.
☆ Capacitor start/capacitor run design for reduced amperage, others are capacitor start/induction run.
✓ Motor with standard diameter shaft, 1.0" longer than standard.
† Class F insulated.
❖ These totally enclosed single phase motors have 1.15 Service Factors.

C-Face kits available

More single-phase motors available - See LEESON's 1050 Stock Catalog

THREE PHASE MOTORS

RIGID BASE • GENERAL PURPOSE

DRIP-PROOF

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
1/4	1725	…	…	…	…	…	…	…
	1725	S56	**100027**	16	208-230/460	1.4	66.0	9.24
1/3	3450	48	**101447**	14	208-230/460	1.4	61.0	9.00
	1725	48	**100446**	17	208-230/460	1.6	68.0	9.12
	1725	S56	**100028**	18	208-230/460	1.6	68.0	9.49
	1140	56	**110425**	23	208-230/460	1.6	65.0	9.88
1/2	3450	…	…	…	…	…	…	…
	3450	S56	**101448**	17	208-230/460	1.8	69.0	9.38
	1725	…	…	…	…	…	…	…
	1725	S56	**100029**	20	208-230/460	2.0	75.0	9.99
	1140	56	**110027**	22	208-230/460	2.8	66.0	10.38
	850	…	…	…	…	…	…	…
3/4	3450	…	…	…	…	…	…	…
	3450	S56	**101449**	20	208-230/460	2.4	79.0	9.88
	1725	S56	**100030**	24	208-230/460	2.8	75.0	10.49
	1140	56	**110028**	17	208-230/460	3.4	75.5	10.88
	1140	…	…	…	…	…	…	…
	850	…	…	…	…	…	…	…
1	3450	56	**110426**	22	208-230/460	3.6	80.6	9.88
	3450	56	**116128** Ⓦ	29	208-230/460	3.4	82.5	10.18
	1725	56	**110029**	22	208-230/460	4.2	78.5	10.38
	1725	56HZ	**115827**	24	208-230/460	4.2	78.5	11.13
	1725	143T	**G120010**	30	208-230/460	3.1	82.5	11.28
	1725	143T	**121003** Ⓦ	36	208-230/460	3.2	85.5	12.12
	1140	…	…	…	…	…	…	…
	1140	145T	**G120089**	35	208-230/460	3.6	80.0	12.28
	1140	145T	**121517**	41	208-230/460	4.4	82.5	12.62
	850	…	…	…	…	…	…	…
1½	3450	56	**110429**	29	208-230/460	4.2	82.1	10.88
	3450	143T	**G120103**	35	208-230/460	4.0	82.5	11.63
	3450	143T	**121514** Ⓦ	34	208-230/460	4.2	84.0	12.12
	1725	56	**110430**	27	208-230/460	5.6	78.5	10.88
	1725	56	**111309**✦	33	208-230/460	5.6	78.5	10.88
	1725	56HZ	**115825**	34	208-230/460	5.6	78.5	11.13
	1725	145T	**G120011**	37	208-230/460	4.4	84.0	12.28
	1725	145T	**121004** Ⓦ	35	208-230/460	4.8	86.5	12.62
	1140	…	…	…	…	…	…	…
	1140	182T	**G130010**	54	208-230/460	5.6	84.0	13.69
	850	…	…	…	…	…	…	…

□ Combination 56H base motors have mounting holes for NEMA 56 and NEMA 143-5T and a standard NEMA 56 shaft.
♣ 1.0 Service Factor.
† Class F insulated.
✦ Automatic reset overload protection. Reconnectable for 277 volt operation without overload protection.
Ⓦ Premium efficiency WATTSAVER® Motors.

TOTALLY ENCLOSED FAN COOLED (TEFC)

NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
48	**101646**	18	208-230/460	1.4	66.0	9.31
…	…	…	…	…	…	…
48	**102684**	17	208-230/460	1.3	69.0	9.06
48	**101647**	21	208-230/460	1.6	68.0	9.31
S56	**101079**	18	208-230/460	1.6	68.0	9.69
56	**110441**	23	208-230/460	1.6	65.0	10.81
48	**100905**	18	208-230/460	1.8	69.0	9.94
…	…	…	…	…	…	…
48	**100961**♣	21	208-230/460	2.0	75.0	9.56
S56	**100913**	24	208-230/460	2.0	75.0	9.94
56	**110353**	26	208-230/460	2.4	70.0	11.31
56	**114618**	31	208-230/460	2.4	69.0	11.81
48	**100960**♣	21	208-230/460	2.4	75.0	10.44
56	**110313**	22	208-230/460	2.4	75.5	10.81
56	**110034**	22	208-230/460	2.8	77.0	10.81
56	**110275**	33	208-230/460	3.0	75.5	11.81
143T	**121009**	34	208-230/460	3.0	75.5	12.75
145T	**121199**	21	208-230/460	3.1	70.0	12.75
56	**110145**	24	208-230/460	3.2	77.1	10.81
56	**116129** Ⓦ	29	208-230/460	3.4	84.0	11.31
56	**110035**	25	208-230/460	3.8	77.0	11.31
56HZ	**115830**	31	208-230/460	3.8	77.0	12.75
143T	**G120014**	31	208-230/460	3.1	82.5	12.75
143T	**120921** Ⓦ	32	208-230/460	3.2	85.5	13.25
56	**113933**	35	208-230/460	4.0	77.0	12.31
145T	**G120087**	45	208-230/460	3.6	80.0	13.25
145T	**121520** Ⓦ	47	208-230/460	4.4	82.5	13.75
182T	**131478**	57	230/460	4.2	74.0	12.96
56	**110745**♣	30	208-230/460	4.2	80.3	11.81
145T	**G120086**	45	208-230/460	4.0	82.5	12.75
143T	**121518** Ⓦ	33	208-230/460	4.2	84.0	13.25
56	**110444**	30	208-230/460	5.0	78.5	11.81
…	…	…	…	…	…	…
56HZ	**115829**	37	208-230/460	5.0	78.5	12.75
145T	**G120015**	36	208-230/460	4.4	84.0	12.75
145T	**120922** Ⓦ	34	208-230/460	4.8	86.5	13.75
56H	**114930**	48	208-230/460	5.7	77.0	13.31
56HZ	**120183**	48	208-230/460	5.7	77.0	13.75
182T	**G130015**	82	208-230/460	5.6	85.5	14.96
184T	**131479**	68	230/460	5.6	77.0	13.96

Motors in this column have a 1.15 Service Factor, except as noted by ♣, which have a 1.0 Service Factor.

Catalog numbers in green are EPACT motors.

DRIP-PROOF

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
2	3450	56	**113292**	33	208-230/460	5.6	82.9	11.38
	3450	145T	**G120076**	45	208-230/460	5.0	84.0	12.28
	3450	145T	**121515** W	36	208-230/460	5.0	84.0	13.12
	1725	56H	**113025**	32	208-230/460	6.2	78.5	11.38
	1725	56H	**111310** ✦	36	208-230/460	6.2	78.7	11.38
	1725	56HZ	**115826**	33	208-230/460	6.2	78.5	11.63
	1725	145T	**G120012**	45	208-230/460	6.0	84.0	13.78
	1725	145T	**121005** W	37	208-230/460	5.8	86.5	13.63
	1140	184T	**G130012**	81	208-230/460	7.2	85.5	14.69
	850	…	…	…	…	…	…	…
3	3450	56H	**113293**	38	208-230/460	8.0	80.0	11.88
	3450	145T	**G120077**	45	208-230/460	7.2	84.0	12.78
	3450	…	…	…	…	…	…	…
	3510	…	…	…	…	…	…	…
	1725	56HZ	**120013**	44	230/460	8.6	82.5	13.12
	1740	182T	**G130000**	57	208-230/460	8.4	86.5	12.69
	1740	182T	**131519** W	75	208-230/460	8.2	89.5	13.69
	1750	…	…	…	…	…	…	…
	1750	…	…	…	…	…	…	…
	1140	213T	**G140550**	140	208-230/460	11.6	86.5	15.76
	850	…	…	…	…	…	…	…
5	3500	…	…	…	…	…	…	…
	3450	182T	**G130282**	64	208-230/460	12.2	85.5	13.19
	1740	184T	**G130004**	69	208-230/460	13.2	87.5	13.69
	1740	184T	**131520** W	82	208-230/460	12.8	89.5	14.69
	1750	…	…	…	…	…	…	…
	1750	…	…	…	…	…	…	…
	1140	215T	**G140122**	120	208-230/460	17.6	87.5	16.75
	850	…	…	…	…	…	…	…
7½	3510	…	…	…	…	…	…	…
	3450	…	…	…	…	…	…	…
	3450	184T	**G130284**	78	208-230/460	17.6	87.5	14.69
	3450	…	…	…	…	…	…	…
	3510	…	…	…	…	…	…	…
	1740	213T	**G140471**	144	208-230/460	20.0	88.5	15.25
	1750	213T	**G150142**	147	208-230/460	19.6	88.5	16.38
	1760	213T	**170142** W	160	208-230/460	19.8	91.0	16.38
	1170	254T	**G150145**	240	208-230/460	20.2	88.5	20.94
	1170	…	…	…	…	…	…	…
	850	…	…	…	…	…	…	…
10	3450	213T	**G140682**	138	208-230/460	23.4	88.5	17.30
	3510	213T	**G150143**	168	208-230/460	24.0	88.5	16.38
	3510	213T	**170143** W	150	208-230/460	23.6	91.0	16.38
	1740	215T	**G140490**	132	208-230/460	28.0	89.5	16.75
	1750	215T	**G150144**	168	208-230/460	25.0	89.5	17.87
	1760	215T	**170144** W	200	208-230/460	25.6	91.7	17.87
	1170	256T	**G150146**	268	208-230/460	27	90.2	22.60
	1170	…	…	…	…	…	…	…
	850	…	…	…	…	…	…	…
15	3450	215T	**G140683**	145	208-230/460	37.0	90.02	18.55
	1760	S254T	**G140579**	150	208-230/460	39.6	91.0	20.07

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

TOTALLY ENCLOSED FAN COOLED (TEFC)

NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	F.L. Amps 230V	% F.L. Eff.	"C" Dim. (Inches)
56	**111916**	33	208-230/460	5.6	78.8	12.31
145T	**G120088**	45	208-230/460	5.0	84.0	13.75
145T	**121519** W	44	208-230/460	5.0	85.5	14.25
56H	**113026**	35	208-230/460	6.2	81.5	12.31
…	…	…	…	…	…	…
56HZ	**115828**	37	208-230/460	6.2	81.5	12.75
145T	**G120016**	46	208-230/460	6.0	84.0	14.25
145T	**120923** W	45	208-230/460	5.8	86.5	14.76
184T	**G130016**	83	208-230/460	7.2	86.5	15.46
213T	**140516†**	107	230/460	8.8	77.0	17.21
56H	**114614**	40	208-230/460	8.0	80.0	12.81
145T	**G120185**	42	230/460	7.4	85.5	13.75
182T	**G130099**	60	208-230/460	7.6	85.5	13.46
182T	**G151563**	58	208-230/460	9.0	85.5	16.14
56HZ	**121034♣**	45	208-230/460	8.6	82.5	14.25
182T	**G130008**	68	208-230/460	8.2	87.5	13.96
182T	**131463** W	74	208-230/460	8.2	89.5	14.46
182T	**G151320**	94	208-230/460	8.5	87.5	16.14
182T	**171320** W	104	208-230/460	7.8	89.5	15.89
213T	**G140551**	116	208-230/460	12.0	87.5	17.71
215T	**140518†**	114	230/460	12.6	80.0	17.21
184T	**G150299**	100	208-230/460	12.0	87.5	15.89
184T	**G130101**	73	208-230/460	12.0	87.5	14.46
184T	**G130027**	80	208-230/460	13.0	87.5	14.96
184T	**131464** W	91	208-230/460	13.0	89.5	15.96
184T	**G151322**	101	208-230/460	13.8	87.5	16.14
184T	**171322** W	109	208-230/460	12.4	89.5	15.89
215T	**G140126**	142	208-230/460	17.6	87.5	18.21
254T	**151355**	188	208-230/460	14.4	88.3	23.23
213T	**170158** W	147	208-230/460	18.0	91.0	18.19
…	…	…	…	…	…	…
184T	**G131082**	91	208-230/460	16.8	88.5	15.96
S213T	**G130103**	101	208-230/460	16.8	88.5	16.59
213T	**G150158**	150	208-230/460	17.8	88.5	18.20
213T	**G140578**	144	208-230/460	20.4	89.5	17.71
213T	**G150157**	153	208-230/460	19.2	89.5	18.19
213T	**170157** W	155	208-230/460	18.6	91.7	18.19
254T	**G150122**	250	208-230/460	20.0	89.5	23.23
254T	**170122** W	249	208-230/460	21.0	91.7	23.19
256T	**151356**	300	208-230/460	20.0	87.7	24.96
215T	**G140686**	126	208-230/460	24.0	89.5	20.23
215T	**G150159**	167	208-230/460	23.6	89.5	19.61
215T	**170159** W	181	208-230/460	23.4	91.7	19.61
215T	**G140489**	167	208-230/460	26.0	89.5	18.71
215T	**G150140**	176	208-230/460	25.2	89.5	19.61
215T	**170140** W	177	208-230/460	25.0	91.7	19.61
256T	**G150123**	277	208-230/460	26.2	89.5	24.92
256T	**170123** W	300	208-230/460	29.0	91.7	24.92
284T	**150282**	346	208-230/460	26.0	88.8	26.26
215T	**G140687**	140	208-230/460	36.0	90.2	20.23
…	…	…	…	…	…	…

Motors in this column have a 1.15 Service Factor, except as noted by ♣, which have a 1.0 Service Factor.

C-Face kits available

More three-phase motors available - See LEESON's 1050 Stock Catalog

SHADED FRAME INDICATES CAST IRON CONSTRUCTION

Catalog numbers in green are EPACT motors.

SM SERIES SUB-MICRO INVERTER DRIVES

For applications requiring a simpler drive without the advanced features of the SM-Plus drive. Provides 11 isolated I/O terminals with one Form A relay output. Other features include:

SM SERIES

- Removable electronic programming module allows off-line set-up and program replication.
- Input line voltage calibration—optimizes over and under voltage trip levels
- Current limit to 180% with frequency foldback
- Adjustable carrier frequency (4 to 10 kHz)
- Adjustable V/Hz
- Output frequency to 240 Hz
- Seven preset speeds
- Automatic restart after fault
- Control via drive face, terminal strip or optional remote keypad
- Coast or ramp to stop
- Independent Accel and Decel adjustment
- Forward only or forward and reverse direction
- Adjustable DC injection braking
- Speed reference: Keypad, 0-10 VDC, or 4-20 mA
- Speed reference calibration
- Speed and load indicating output signal selection: 0-10 VDC or 4-20mA
- Output signal calibration
- I^2t motor thermal overload protection; meets UL requirements for motor protection in single motor applications
- Fixed boost for high starting torque
- Accel boost for high torque accelerating at any speed
- Slip compensation
- Three-digit LED display
- Password protection
- Fault history: Stores eight previous trips
- Terminal status indication
- Default parameter reset
- IP20 enclosure with finger safe terminals

SINGLE PHASE INPUT/THREE PHASE OUTPUT

	HP	Output Amps 230 VAC	Input Voltage	Catalog Number	App. Wgt.(lbs.)	Disc. Sym.	Dimension Key
110-120 Volts	1/3	1.7	110-120	174263	2	A	A5
	1/2	2.4	110-120	174264	2	A	A5
	1	4.2	110-120	174265	3	A	B5
	1 1/2	6.0	110-120	174266	3	A	B5

SINGLE PHASE INPUT/THREE PHASE OUTPUT

	HP	Output Amps	Input Voltage	Catalog Number	App. Wgt.(lbs.)	Disc Sym.	Dimension Key
208-240 Volts	1/3	1.7	208-240	174267	2	A	A5
	1/2	2.4	208-240	174268	2	A	A5
	1	4.2	208-240	174270	3	A	A6
	1 1/2	6.0	208-240	174271	4	A	B5
	2	7.0	208-240	174272	5	A	B5
	3	9.6	208-240	174273	5	A	B6

THREE PHASE INPUT/THREE PHASE OUTPUT

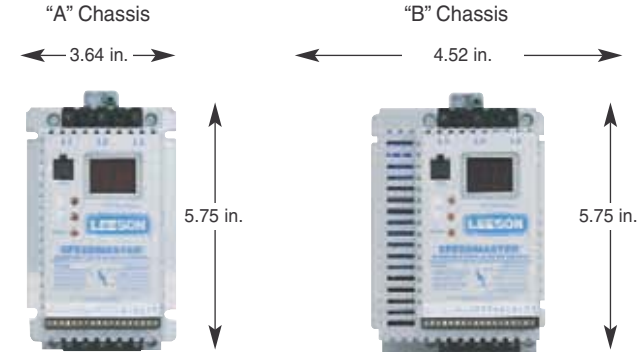
	HP	Output Amps	Input Voltage	Catalog Number	App. Wgt.(lbs.)	Disc Sym.	Dimension Key
208-240 Volts	1/2	2.4	208-240	174274	2	A	A5
	1	4.2	208-240	174276	2	A	A6
	1 1/2	6.0	208-240	174277	3	A	A7
	2	7.0	208-240	174278	3	A	A7
	3	9.6	208-240	174279	3	A	B6
	5	15.2	208-240	174288	5	A	B6

THREE PHASE INPUT/THREE PHASE OUTPUT

	HP	Output Amps	Input Voltage	Catalog Number	App. Wgt.(lbs.)	Disc Sym.	Dimension Key
400-480 Volts	1/2	1.1	400-480	174281	2	A	A1
	1	2.1	400-480	174282	3	A	A2
	1 1/2	3.0	400-480	174283	3	A	A3
	2	3.4	400-480	174284	4	A	A3
	3	4.8	400-480	174286	4	A	B2
	5	7.8	400-480	174287	5	A	B2

See LEESON's complete line of AC drives and accessories in the 1050 Stock Catalog

DIMENSIONS: SUB-MICRO INVERTERS



Depth: A1: 3.94 in.
A2: 4.74 in.
A3: 5.74 in.
A5: 3.26 in.
A6: 3.63 in.
A7: 5.56 in.

Depth: B1: 5.24 in.
B2: 6.74 in.
B5: 4.88 in.
B6: 5.53 in.

Dimensions shown for reference only. Contact LEESON for detailed drawing.

JET PUMP MOTORS

General Specifications:

Stator impregnated with extra heavy varnish system. High temperature copper magnet wire provides extended motor life. "Super Hush" flow-through ventilation system (exhaust shaft-end) standard. Vertical or horizontal mounting (drip-cover available). Ground provision. Die cast aluminum NEMA 56 C face mounting flange, with cast iron bearing seat insert. Mechanical bearing lock—shaft-end, for longer life. Reliable, field proven, corrosion resistant rotating switch. High overload capacities provided by service factor. Neoprene shaft flinger on J frame motors protects bearings by repelling moisture and other contaminants.

Shaft Material:

Keyed shafts are made of carbon steel. Threaded shafts are 416 stainless steel. Shafts are CW rotation, facing lead end.

Bearings:

203 Double-sealed ball bearing, shaft-end; 203 Double-shielded ball bearing, switch-end. Shaft-end bearing is locked to limit axial movement of the shaft.

Terminal Board:

¼" Quick connects (keyed shaft motors are reversible).

U.L. and C.S.A. Recognized:

Motor components (UL File No. E57948).

Class "B" insulation system (UL File No. E55555).

Thermal protector/winding combination (UL No. E57955) through 1HP C.S.A. listed through 1HP (Report No. LR33543).

SERVICE FACTORS FOR LEESON SINGLE PHASE JET PUMP MOTORS*

HP	Drip-Proof Service Factor	TEFC Service Factor
1/2	1.60	1.60
3/4	1.50	1.50
1	1.40	1.25
1½	1.30	1.00
2	1.25	1.00
3	1.15	—

✱ Applies to general purpose motors only, not explosion-proof.

KEYED SHAFT • DRIP-PROOF SINGLE PHASE • LESS BASE

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
1/2	3450	S56C	100204	19	115/208-230	Auto	4.2	9.81
3/4	3450	S56C	100205+	21	115/208-230	Auto	5.2	10.40
1	3450	S56C	100722+	24	115/208-230	Auto	6.2	10.81
1½	3450	56C	110288	31	115/208-230	Auto	9.0	11.38
2	3450	56C	110289	37	115/208-230	Auto	10.5	12.38
3	3450	56C	110280☆	49	230	Auto	13.6	13.69

THREADED SHAFT • DRIP-PROOF SINGLE PHASE • LESS BASE

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
1/2	3450	S56J	100207+	19	115/208-230	Auto	4.2	10.84
3/4	3450	S56J	100208+	21	115/208-230	Auto	5.2	10.94
1	3450	S56J	100723+	23	115/208-230	Auto	6.2	11.44
1½	3450	56J	110292+	31	115/208-230	Auto	9.0	11.88
2	3450	56J	110293+	37	115/208-230	Auto	10.5	12.38
3	3450	56J	110286☆+	51	230	Auto	13.6	13.68

THREADED SHAFT • TEFC SINGLE PHASE • LESS BASE

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
1/2	3450	56J	113955+	22	115/208-230	Auto	3.6	11.31
3/4	3450	56J	113956+	26	115/208-230	Auto	5.0	11.81
1	3450	56J	113639+	30	115/208-230	Auto	6.0	12.31
1½	3450	56J	113640+	34	115/208-230	Auto	8.5	12.81
2	3450	56J	113641+	41	115/208-230	Auto	10.0	13.81

THREADED SHAFT • TEFC SINGLE PHASE • WITH BASE

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
1/2	3450	56J	113637+	23	115/208-230	Auto	3.6	11.31
3/4	3450	56J	113638+	26	115/208-230	Auto	5.0	11.81
1	3450	56J	113957+	28	115/208-230	Auto	6.0	12.31
1½	3450	56J	113958+	34	115/208-230	Auto	8.5	12.81
2	3450	56J	113959+	43	115/208-230	Auto	10.0	13.81

THREADED SHAFT • EXPLOSION PROOF • TEFC SINGLE PHASE • C-FACE LESS BASE

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
1/2	3450	56J	116188	35	115/208-230	Auto	3.6	13.96
3/4	3450	56J	116186	40	115/208-230	Auto	5.0	13.96
1	3450	56J	116185	49	115/208-230	Auto	6.0	14.96
1½	3450	56J	116183	52	115/208-230	Auto	8.5	14.96
2	3450	56J	116181	54	115/208-230	Auto	10.5	15.96

+ These motors are fixed rotation—CW from lead end.

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

Three-phase jet pump motors and swimming pool motors also available.
See LEESON's 1050 Stock Catalog

JP AND JM PUMP MOTORS
SINGLE PHASE

JP PUMP MOTORS

General Specifications:

For use with close-coupled pumps having NEMA JP mounting and shaft dimensions. In such applications, the pump impeller is mounted directly on the motor shaft. Designed for continuous duty service. All motors listed are 1.15 Service Factor.

Mechanical Features:

Open drip-proof construction with rigid base mounting. Locked bearing on shaft end limits axial shaft movement. For use where the environment is relatively clean and dry. For outdoor use, an enclosure or drip cover may be preferred. See the Drip Cover Kit table. Some 182-4JP frame motors have enclosed endshields as standard with frame meeting the 12˚ drip-proof requirement. No drip cover is needed, or shown in the table, for these motors.

Electrical Features:

UL Recognized and CSA Certified. Single phase designs are capacitor start, induction run.

SINGLE PHASE • DRIP-PROOF • RIGID BASE

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)	Drip Cover Kit Ref.
5	3450	184JP	**131859**[d]	78	230	None	24.0	20.15	B
	3450	184JP	**131881**	92	230	None	22.0	19.38	…
7½	3450	213JP	**140646**	140	230	None	37.0	14.17	C
10	3450	215JP	**140647**	157	230	None	47.0	15.67	C

DRIP COVER KITS FOR JP PUMP MOTORS

Kit Ref.	Frame	Catalog Number	Enclosure
B	182JP-184JP	**175933**	ODP
C	213JP-215JP	**175305**	ODP

JM PUMP MOTORS

General Specifications:

Designed for continuous duty service on close-coupled pumps using NEMA JM mounting provisions. All motors have a rigid mounting base and NEMA JM pump shaft.

Mechanical Features:

Open drip-proof construction, cooling air exhausts at the shaft end for maximum cooling. Oversized locked bearing on shaft end limits axial shaft movement. Drip covers are available as accessory kits for 143-5JM and 182-4JM motors. See the drip cover kit table. Some 182-4JM frame motors have enclosed endshields as standard with frame vents meeting the 12° drip-proof requirement. No drip cover is needed, or shown in the table, for these motors.

Electrical Features:

High efficiency copper windings with NEMA 1.15 service factors. UL and CSA recognized designs.

Single phase designs are capacitor start/induction run unless indicated otherwise.

SINGLE PHASE • DRIP-PROOF • RIGID BASE

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)	Drip Cover Kit Ref.
1	1740	143JM	**120996**☆	42	115/208-230	None	6.4	14.41	A
1½	1740	145JM	**120994**	45	115/208-230	None	8.6	15.41	A
2	3450	145JM	**121190**☆	47	115/208-230	None	10.5	16.41	A
	1740	145JM	**120995**	45	115/208-230	None	10.5	15.41	A
3	3450	182JM	**131640**	57	115/208-230	None	15.2	16.32	C
	1760	182JM	**131604**	73	230	None	16.8	15.82	C
5	3450	184JM	**131641**	70	115/208-230	None	24.0	17.32	C
	1760	184JM	**131605**	82	230	None	21.0	16.32	C
7½	3450	213JM	**140642**	140	230	None	37.0	14.17	E
	1760	215JM	**140643**☆[d]	141	230	None	34.5	18.38	E
	1760	215JM	**140665**☆	141	230	None	40.5	15.67	E
10	3450	215JM	**140644**	144	230	None	47.0	18.38	E
	1760	215JM	**140645**☆[d]	173	230	None	44.0	16.93	E
	1760	215JM	**140666**☆	144	230	None	43.0	19.88	E

☆ Capacitor start/capacitor run design for reduced amperage, others are capacitor start/induction run.
d To be discontinued when present stock is depleted.

DRIP COVER KITS FOR JM PUMP MOTORS

Kit Ref.	Frame	Catalog Number	Enclosure
A	143-145JM	**175004**	ODP
C	182-184JM	**175933**	ODP
E	213-215JM	**175305**	ODP

Three-phase JM and JP motors also available - See LEESON's 1050 Stock Catalog

WOODWORKING MOTORS

General Specifications:

Motors designed for woodworking equipment such as table saws, planers, etc.

Totally enclosed designs prevent motor problems caused by wood dust and shavings.

SINGLE PHASE • TEFC • RIGID BASE

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
3/4	3450	56	110108	26	115/208-230	Manual	5.0	11.31
1	3450	56	110142	28	115/208-230	Manual	6.0	11.81
1½	3450	56	110109	34	115/208-230	Manual	8.5	12.31
2	3450	56H	110402❖□†	41	115/208-230	Manual	10.0	13.31
	3450	145T	120395❖†	44	115/208-230	Manual	10.0	13.75
3	3450	145T	120341☆†	46	230	None	14.0	13.75

SINGLE PHASE • TEFC • C FACE LESS BASE

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
3	3450	145TC	120824☆	46	230	Manual	14.0	13.88

TABLE SAW MOTOR

General Specifications:

Totally enclosed fan cooled motor produces extra high breakdown torques for maximum cutting power.

Supplied with 8-foot cord and 115V plug, on/off toggle switch. CW rotation, facing lead end. Replaces Delta motor number 62-042.

SINGLE PHASE • TEFC • RIGID BASE

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
1½	3450	56	113627	39	115/230	Manual	7.5	12.31

CONTRACTORS' SAW MOTORS

Special Mounting:

Motor pivots on rod for belt tensioning. Totally enclosed fan cooled motor produces extra high breakdown torques for maximum cutting power. Has 1¾" long shaft, ¾" diameter with keyway. Added 54" cord to all motors 1½-4 HP. Catalog numbers 120925 and 120997 replace Delta UNISAW® motor 83-621 (1½ HP); 120728 and 120998 replace Delta UNISAW® motor 83-651 (3 HP).

SINGLE PHASE • TEFC • DELTA UNISAW® MOUNTING

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
1½	3450	143Y	120925	44	115/230	None	10.0	12.69
2	3450	143Y	120997	44	115/230	None	11.0	12.69
3	3450	145Y	120728☆	52	230	None	16.0	13.69
4	3450	145Y	120998☆	48	230	None	17.6	13.69

UNISAW® is a registered trademark of Delta International.

CONTRACTORS' POWER TOOL MOTORS

General Specifications:

Open, drip-proof double shaft motors for woodworking applications. With encapsulated, electronic starting switch and double shielded ball bearings to prevent failures caused by sawdust accumulation.

Capacitor start design for high torques and reduced amperage, improved efficiency.

Shaft extension each end, with keyway and flat 90° apart for ease of mounting.

Useable shaft, each end is 1½" long by ½" diameter on 48 frames and 1⅞" long by ⅝" diameter on 56 frame motors.

DOUBLE-SHAFT • SINGLE PHASE DRIP-PROOF • RIGID BASE

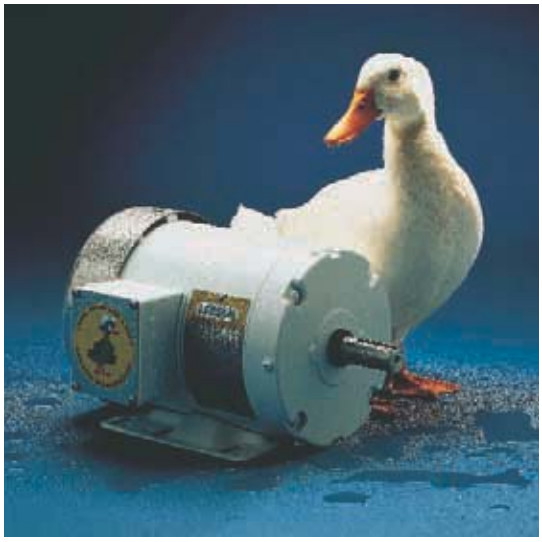
HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
1/2	1725	S56Z	101781	17	115/208-230	None	4.4	12.43
3/4	3450	48Z	101782	24	115/208-230	None	4.8	12.06
1	3450	56Z	114216	27	115/208-230	None	6.0	12.81

☆ Capacitor start/capacitor run design for reduced amperage, others are capacitor start/induction run.
† Class F insulated.
□ Combination 56 H base motors have mounting holes for NEMA 56 and NEMA 143-5T and a standard NEMA 56 shaft.
❖ These totally enclosed single phase motors have 1.15 Service Factors.

LEESON WASHGUARD® MOTORS

WHITE EPOXY • SINGLE PHASE & DC

WASHGUARD® MOTORS SHED WATER LIKE A DUCK!



SINGLE PHASE • TEFC • RIGID BASE

Featuring Electronic Solid State Encapsulated Switch

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
1/2	1725	56	112431	24	115/208-230	None	4.4	10.81
3/4	1725	56	112432	31	115/208-230	None	5.4	11.31
1	1725	56	112626	33	115/208-230	None	6.4	11.81
	1740	143T	120589	34	115/208-230	None	6.4	12.25
1½	1740	145T	120590	47	115/208-230	None	9.5	13.75
2	1740	182T	131571	60	115/208-230	None	12.6	13.46

SINGLE PHASE • TEFC • C FACE LESS BASE

Featuring Electronic Solid State Encapsulated Switch

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
1/3	3450	56C	114310	25	115/208-230	None	2.6	10.69
	1725	56C	114311	27	115/208-230	None	3.2	10.69
1/2	3450	56C	114312	25	115/208-230	None	3.6	10.69
	1725	56C	114313	29	115/208-230	None	4.4	11.19
3/4	3450	56C	114314	31	115/208-230	None	5.0	11.69
	1725	56C	114315	31	115/208-230	None	5.4	11.69
1	3450	56C	114316	29	115/208-230	None	6.0	12.19
	1725	56C	114317	34	115/208-230	None	6.4	12.19
1½	3450	56C	114318	36	115/208-230	None	8.5	12.69
	1725	56C	114319	43	115/208-230	None	9.5	13.69

SINGLE PHASE • TEFC • C FACE WITH BASE

Featuring Electronic Solid State Encapsulated Switch

HP	RPM 60 Hz	NEMA Frame	Catalog Number	App. Wgt. (lbs.)	Voltage	Overload Protection	F.L. Amps 230V	"C" Dim. (Inches)
1/3	3450	56C	113580	27	115/208-230	None	2.6	10.69
	1725	56C	112526	28	115/208-230	None	3.2	10.69
1/2	3450	56C	113581	25	115/208-230	None	3.6	10.69
	1725	56C	112527	28	115/208-230	None	4.4	11.19
3/4	3450	56C	113582	31	115/208-230	None	5.0	11.69
	1725	56C	112528	30	115/208-230	None	5.4	11.69
1	3450	56C	113583	31	115/208-230	None	6.0	12.19
	1725	56C	112529	33	115/208-230	None	6.4	12.19
1½	3450	56C	113584	36	115/208-230	None	8.5	12.69
	1725	56HC	113300	45	115/208-230	None	9.5	13.69
2	3450	56HC	114637	43	115/208-230	None	10.0	13.69

LEESON WASHGUARD® motors are designed for extended life in applications requiring regular washdown as in food processing, or otherwise wet, high humidity environments. WASHGUARD® motors retard the entrance of water during cleaning operations and release any water that does enter the motor. Extra protection for the motor's interior prevents rust and corrosion build-up and drains release trapped moisture to insure a longer life than possible with a standard motor.

PROTECTED WITH RUST-OLEUM® COATINGS

Mechanical Protection Features:

High quality, corrosion resistant *303 stainless steel* shaft plus lubricated spring-loaded contact seals and patented, "V" ring Forsheda seal deflect water, protect bearings and the motor's interior. Double sealed, oversized bearings with high temperature moisture resistant lubricant are used.

Frame, base, endshields, armature and interior components protected by enamel and polyester compounds of outstanding adhesion and resistance to moisture, acids, alkalies and oil.

Cast conduit box with threaded entrance, drain holes and tough, high temperature Nitrile gaskets keep water out and resist deflection under high pressure washdowns Conduit box cover and fan cover, when used, are type 304 stainless steel.

Four drains in *each* endshield at 3,6,9,and 12 o'clock purge water, and can be repositioned for maximum effectiveness regardless of the motor's mounting. Machined fits are sealed, and nylon gaskets are used to seal bolt heads. Stainless steel data plate.

Chemically inert static free fan is positively positioned on the shaft by opposing flats, shoulder and snap ring arrangement and protected by heavy gauge, stainless steel fan guards. Finished in USDA approved tough white epoxy for superior corrosion resistance and protection against harsh caustic cleaning solutions.

Three-phase Washguard® motors with epoxy paint and all-stainless steel also available

See LEESON's 1050 Stock Catalog

AC GEAR+MOTORS • SINGLE PHASE
BMQ STYLE • TEFC • 115/230 VAC
60HZ • CONTINUOUS DUTY • 1750 RPM INPUT

Output RPM	Output TQ (lb.in.)	Input HP	GEAR+MOTOR™ Catalog Number	OHL	Service Factor*	NEMA Frame	F.L. Amps 230V	App. Wgt. (lbs.)	AG▼▼ Dim. (Inches)
175 10:1 Ratio	102	1/3	**W6130075-101766**	200	2.15	S56C	3.1	39	8.25
	156	1/2	**W6130075-110056**	200	1.40	56C	4.4	42	8.75
	233	3/4	**W6130075-110057**	200	.94	56C	5.4	47	9.25
	315	1	**W6180111-110058**	500	1.38	56C	6.4	56	9.82
	478	1 1/2	**W6210147-120017**	700	1.40	145TC	8.6	69	10.75
	638	2	**W6210147-120060**	700	1.05	145TC	10.0	76	11.75
	949	3	**W6240219-131545**	900	1.05	184TC	16.8	143	13.78
117 15:1 Ratio	143	1/3	**W6130076-101766**	200	1.69	S56C	3.1	39	8.25
	216	1/2	**W6130076-110056**	200	1.12	56C	4.4	42	8.75
	335	3/4	**W6180112-110057**	500	1.40	56C	5.4	52	9.25
	446	1	**W6180112-110058**	500	1.05	56C	6.4	56	9.82
	685	1 1/2	**W6210112-110420**	700	1.06	56C	8.6	69	10.75
	920	2	**W6240184-120060**	900	1.17	145TC	10.0	92	11.75
	1403	3	**W6260220-131545**	1000	1.02	184TC	16.8	156	13.78
88 20:1 Ratio	177	1/3	**W6130077-101766**	200	1.36	S56C	3.1	42	8.25
	269	1/2	**W6180113-110056**	500	1.78	56C	4.4	49	8.75
	439	3/4	**W6180113-110057**	500	1.09	56C	5.4	52	9.25
	590	1	**W6210113-110058**	700	1.26	56C	6.4	62	9.82
	888	1 1/2	**W6240149-110420**	900	1.24	56C	8.6	85	10.75
	1202	2	**W6260149-112136**	1000	1.22	56C	10.0	105	11.75
58 30:1 Ratio	247	1/3	**W6130079-101766**	200	.98	S56C	3.1	42	8.25
	402	1/2	**W6180115-110056**	500	1.21	56C	4.4	49	8.75
	625	3/4	**W6210115-110057**	700	1.20	56C	5.4	58	9.25
	842	1	**W6240151-110058**	900	1.32	56C	6.4	78	9.82
	1255	1 1/2	**W6260187-120017**	1000	1.18	145TC	8.6	98	10.75
44 40:1 Ratio	325	1/3	**W6180116-101766**	500	1.48	S56C	3.1	46	8.25
	492	1/2	**W6180116-110056**	500	.98	56C	4.4	49	8.75
	776	3/4	**W6210116-110057**	700	.96	56C	5.4	58	9.25
	1037	1	**W6240152-110058**	900	1.06	56C	6.4	78	9.82
35 50:1 Ratio	386	1/3	**W6180117-101766**	500	1.20	S56C	3.1	46	8.25
	632	1/2	**W6210117-110056**	700	1.14	56C	4.4	55	8.75
	927	3/4	**W6240153-110057**	900	1.15	56C	5.4	74	9.25
	1270	1	**W6260153-110058**	1000	1.11	56C	6.4	91	9.82
29 60:1 Ratio	448	1/3	**W6180118-101766**	500	.97	S56C	3.1	46	8.25
	687	1/2	**W6210118-110056**	700	.98	56C	4.4	55	8.75
	1064	3/4	**W6240154-110057**	900	.95	56C	5.4	74	9.25

O List price includes gear reducer and motor. **Use discount symbol "G" for all Gear+Motors.**

* Service Factor is based on maximum torque rating of reducer. Refer 6050 catalog for Special Application Considerations.

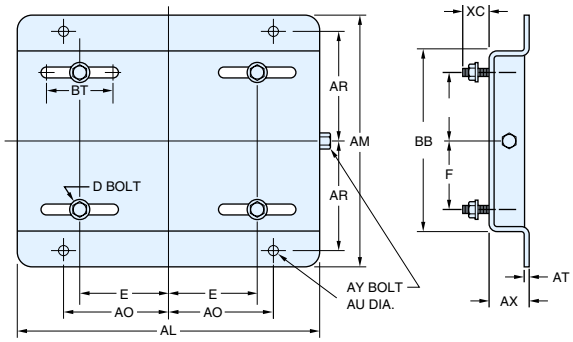
▼▼ Overall length of motor LESS its shaft. Add this dimension to reducer dimensions on page 24 for GEAR+MOTOR dimensions.

Note: Gear reducer catalog numbers are for left hand output shaft extensions. For right hand output shaft, specify GR1.
For double output shaft extensions, consult LEESON for price and availability.

MOTOR ACCESSORIES
FIELD INSTALLED

ADJUSTABLE MOTOR BASES

Heavy gauge steel mounting bases simplify the installation of motors and make the tensioning, maintenance and replacement of belts a simple efficient task. Fabricated from sheet or steel plate, then primed and finished in a gray rust and corrosion resistant oven-baked finish. Gussets and reinforcing channels on larger units and continuous seam welding on all units give these bases strength and durability for a long life. A single zinc plated adjusting screw is provided. Motor mounting bolts are included.



Frame	Catalog Number	AL	AM	AX	BB	E	F	AO	AR	AU**	BT	AT	XC	D* Bolt	AY Bolt	App. Wgt. (lbs.)
48	**175032**	10	6¼	1⅛	4¼	2⅛	1⅜	3½	2¾	⅜	3	.078	⅞	5/16 x 1	⅜ x 4	2
56	**175033**	10⅝	6½	1⅛	4½	2 7/16	1½	3 13/16	2⅞	⅜	3	.078	⅞	5/16 x 1	⅜ x 4	3
143T	**175034**	10½	7½	1⅛	5½	2¾	2	3¾	3⅜	⅜	3	.119	13/16	5/15 x 1	⅜ x 4	5
145T	**175035**	10½	8½	1⅛	6½	2¾	2½	3¾	3⅞	⅜	3	.119	13/16	5/15 x 1	⅜ x 4	6
182T	**175036**	12¾	9½	1½	6½	3¾	2¼	4½	4¼	½	3	.134	1½	⅜ x 1¾	½ x 5	9
184T	**175037**	12¾	10½	1½	7½	3¾	2¾	4½	4¾	½	3	.134	1½	⅜ x 1¾	½ x 5	9
213T	**175038**	15	11	1¾	7½	4¼	2¾	5¼	4¾	½	3½	.164	1½	⅜ x 1¾	½ x 5	13
215T	**175039**	15	12½	1¾	9	4¼	3½	5¼	5½	½	3½	.164	1½	⅜ x 1¾	½ x 5	15

* Motor mounting bolt diameter and length, four supplied with each base.
** Base mounting bolts, four required—not supplied with base.

NOTE: These bases are not suitable for vertical mounting. All dimensions in inches.

TRANSITION BASES

Transition bases compensate for the difference in mounting dimensions and shaft height of a rigid base NEMA T frame to the next higher NEMA U frame. This makes it possible, for example, to replace a 10 HP NEMA 254U frame motor with a 10 HP NEMA 215T frame motor without modifying the basic installation. Made of the same high-quality materials and construction as the adjustable motor bases above. They are for horizontal mountings, shimming may be needed for direct coupled loads. Thread size listed is for mounting transition base to the "T" frame motor. Dimensions listed are for one piece—two are supplied, one for each side of the motor's foot.

Converts T Frame	To U Frame	Catalog Number	App.Wgt. (lbs.)	Height (Inches)	Width (Inches)	Length (Inches)	Thread
143T/145T	182/184	**175091**	2	1	2¼	7½	5/16-18
182T/184T	213/215	**175092**	3	¾	1¾	9½	⅜-16
213T/215T	254U/256U	**175093**	5	1	2 7/16	12¾	⅜-16

DRIP-COVER KITS FOR DRIP-PROOF MOTORS

Each kit includes one drip-cover. Designed to protect drip-proof motors from rain, snow and ice when mounted outdoors in a vertical position.

Frame	Catalog Number	App. Wgt. (lbs.)
48 S56	**175003**	2
56 143T-145T	**175004**	2
213T-215T 213T-215T	**175035*** **175846**	12 12

*for use with 213-215T 3450 RPM motors

DRIP-COVER KIT FOR TEFC MOTORS

For use with steel frame motors only.

Frame	Catalog Number	App. Wgt. (lbs.)
213T-215T	**175849**	12

RODENT SCREEN KITS

Frame	Enclosure	Catalog Number	App. Wgt. (lbs.)
182T-184T*	Open	**175872**	1.5
213T-215T*	Open	**175871**	1.5

*Rolled steel frame only.

TERMS AND CONDITIONS OF SALES QUOTATIONS ARE MADE AND ORDERS ARE ACCEPTED BY SELLER ONLY TO THESE TERMS AND CONDITIONS:

1. AGREEMENT AND MODIFICATION OF SALES TERMS.

The agreement between LEESON Electric and Buyer ("Sales Contract") is with respect to the sale of goods described on the other side hereof (the "goods"). Any Terms and Conditions contained in any purchase order or other form of communication from LEESON Electric's customers, which are additional to or different from these Terms and Conditions, shall be deemed rejected by LEESON Electric unless expressly accepted in writing by LEESON Electric.

2. ACCEPTANCE OF ORDERS.

Acceptance by LEESON Electric of Buyer's purchase order(s) is expressly conditioned upon Buyer's assent to these Terms and Conditions. Buyer will be deemed to have assented to such Terms and Conditions unless LEESON Electric receives written notice of any objections within 10 days after Buyer's receipt of this form or in all events prior to any delivery or other performance by LEESON Electric of Buyer's order if less than 10 days.

3. QUOTATIONS.

Quotations by LEESON Electric shall be deemed to be offers by LEESON Electric to sell the goods described therein subject to these Terms and Conditions, and acceptance of such offers is expressly limited to acceptance by Buyer of all of these Terms and Conditions within 30 days from the date of the quotation or as specified. Purchase orders submitted by Buyer for the goods quoted by LEESON Electric shall be subject to and will be deemed to constitute acceptance of these Terms and Conditions. All purchase orders will be subject to approval by LEESON Electric.

4. TERMINATION OR MODIFICATION.

The Sales Contract may be modified or terminated only upon LEESON Electric's express written consent, which consent will at all times be conditioned on Buyer's agreement to pay LEESON Electric's modification or termination charge including, but not limited to expenses and costs plus a reasonable profit, except that any goods completed on or before LEESON Electric's acceptance of termination shall be accepted and paid in full by Buyer.

5. PRICES AND TERMS.

Fulfillment of Buyer's order is contingent upon the availability of materials. The price of the goods sold pursuant to the Sales Contract shall be based upon LEESON Electric's prices in effect at the time of shipment and any acceptance of the order will be on the basis of the freight rates in effect at the time of shipment. In the event of an increase or decrease in the applicable freight charges before the material is shipped, such changes in freight charges will be for the account of Buyer. Price advances, discounts, extras and terms and conditions are subject to changes without notice. Unless otherwise provided on the front side hereof, price is F.O.B. LEESON Electric's point of shipment, and terms of payment shall be net 30 days from date of invoice. LEESON Electric may assess finance and service charges of 1-1/2 percent per month (or the highest rate allowed by state law) on invoices not paid within stated payment terms. Open account credit status is offered at the discretion of the LEESON Electric. LEESON Electric may discontinue open account status or change credit limit as warranted, in its opinion, by the financial condition and/or credit history of the Buyer. LEESON Electric may require full or partial payment or payment guarantees in advance of shipment whenever, in its opinion, the financial condition and/or credit history of Buyer so warrants. In addition, LEESON Electric may, at any time, suspend performance of any order or require payment in cash, security or other adequate assurance satisfactory to LEESON Electric when, in LEESON Electric's opinion, the financial condition and/or credit history of Buyer warrants such action.

6. TAXES.

Prices do not include sales, use or other similar federal, state or local taxes. Buyer shall either have a tax-exemption certificate on file with the LEESON Electric or pay to LEESON Electric, in addition to the price of the goods, any and all applicable taxes, which may be invoiced separately at a later date.

7. DESIGN; EXTRA WORK; BUYER'S MATERIAL.

(a) If any order accepted by LEESON Electric contemplates the preparation of special designs by LEESON Electric, Buyer issuing such order will have a responsible representative specifically approve all designs prepared by LEESON Electric. (b) If Buyer requests extra work not included in the quotation or original order, Buyer will pay for the extra work at reasonable rates as determined by LEESON Electric. (c) In the event spoilage/damage occurs on orders where Buyer furnishes any material, LEESON Electric shall not be liable for replacement of or damage to such material.

8. RISK OF LOSS, TITLE, SECURITY INTEREST.

Delivery shall occur, and risk of loss shall pass to Buyer, upon delivery of the material to a carrier at the F.O.B. point of shipment. Transportation shall be at Buyer's sole risk and expense, and any claims for losses or damage in transit shall be against the carrier only. However, LEESON Electric retains title to all products until paid for in full in cash and Buyer agrees to perform all acts necessary to provide a fully perfected security interest in the goods in favor of LEESON Electric. LEESON Electric may, at its option, repossess the same, upon Buyer's default in payment hereunder, and charge Buyer with any deficiency.

9. DELIVERIES AND QUANTITIES.

(a) Delivery dates are not guaranteed but are estimated on the basis of immediate receipt by LEESON Electric of all information to be furnished by Buyer and the absence of delay, direct or indirect, resulting from or contributed to by circumstances beyond LEESON Electric's reasonable control. If the goods are non-catalog goods, LEESON Electric may ship overages or underages to the extent of 10 percent of quantity ordered, and Buyer shall pay for such quantity based upon the unit price of the goods. LEESON Electric shall not be required to maintain closer control of quantity, unless specifically agreed to by LEESON Electric in writing. Quantities of all items may be determined by weight. Any claims for shortage must be within 10 days from the date of receipt of the goods by Buyer, and in every case the weights found in any particular shipment, including tare, must be given and LEESON Electric advised as to the method used by Buyer in computing the count of parts. (b) In the event that Buyer is unable to accept delivery of the goods at time of shipment, LEESON Electric shall invoice Buyer for the full purchase price as if shipment had been made and: (i) if LEESON Electric is able to store such goods in its own facilities, Buyer will pay LEESON Electric the reasonable handling and storage charges for the period of such storage, and (ii) if LEESON Electric is unable to store such goods at its own facility, LEESON Electric reserves the right to arrange handling and storage in a suitable bonded warehouse for the Buyer at Buyer's expense. In cases where handling and storage become necessary, it shall be Buyer's responsibility to notify LEESON Electric when shipment is to be made. LEESON Electric will make necessary arrangements for shipment at Buyer's expense.

10. RETURNED GOODS.

Goods may not be returned. However, if LEESON Electric consents in writing or upon verbal authorization to the return of goods for any reason, Buyer, who also shall assume all risk of loss of such returned goods until actual receipt by LEESON Electric, must prepay transportation charges.

11. INSPECTION, ACCEPTANCE.

Buyer shall inspect the goods immediately upon the receipt thereof. All claims by Buyer (including claims for shortages), except only those provided for under the WARRANTY AND LIMITATIONS OF LIABILITY and PATENTS clauses below, must be asserted in writing by Buyer within a 10 day period or they are waived. If this contract involves partial performances, all such claims must be asserted within a 10-day period for each partial performance. Rejection may be only for defects substantially impairing the value of products or work. Buyer's remedy for lesser defects shall be those provided for under the Warranty and Liability clauses. THERE SHALL BE NO REVOCATION OF ACCEPTANCE. If Buyer wrong-fully rejects, revokes or delays acceptance of items or work tendered under this contract, or fails to make a payment due on or before delivery, or repudiates this contract, LEESON Electric shall, at its option, have a right to recover as damages, either the price as stated herein (upon recovery of the price, the items involved shall become the property of the Buyer) or the profit (including reasonable overhead) which the LEESON Electric would make from performance together with incidental damages and reasonable cost.

12. WARRANTIES AND LIMITATIONS OF LIABILITY.

(a) LEESON Electric warrants to the Buyer that its motors, gearmotors, DC controllers, and AC drives are free from defects in workmanship and materials when operated under normal conditions and in accordance with nameplate characteristic limits. This warranty shall be in effect for a period of 12 months from date of installation, but in no event be in effect for more than 24 months from data of manufacture, with the following exceptions: i) EPACT motors ("G" prefix), which are warranted for a period of 24 months from date of installation but for not more than 30 months from date of manufacture, ii) Wattsaver" Premium Efficiency three phase motors and Speedmaster Inverter-Duty motors are warranted for a period of 36 months from the date of installation but for not more than 42 months from the date of manufacture, & iii) Motor brakes provided as coupler brakes, brake kits, or as part of brakemotors are covered by the manufacturers (Stearns or Dings) warranties.

(b) LEESON Electric's sole obligation under the foregoing warranties is limited to either, at LEESON Electric's option, replacing or repairing defective goods (or defective parts thereof) within the warranty period. LEESON Electric shall not be liable under any circumstances, for consequential or incidental damages, including, but not limited to personal injury or labor costs. This warranty does not cover the cost of removal, installation, or re-testing of the new or repaired goods or parts, or any other direct or incidental expenses incurred in shipping the product to or from LEESON Electric. Replacement goods or parts are warranted for the remainder of the warranty period applicable to the goods originally supplied by LEESON Electric. All claims for allegedly defective goods must be made within 10 days after Buyer learns of such alleged defects. All claims not made in writing and received by LEESON Electric within such 10 day period shall be deemed waived. With prior approval from LEESON Electric, Buyer shall return a sample of the alleged defective part, freight prepaid, for LEESON Electric's inspection, and no other goods shall be returned to LEESON Electric's District Office/Warehouse, nearest factory, or Authorized Service Center without LEESON Electric's written consent. This warranty shall not extend to goods subjected to misuse, abuse, neglect, accident or improper installation or maintenance, incorrect lubrication, incorrect electrical connection, improper power supply, or goods which have been altered or repaired by anyone other than LEESON Electric or its authorized representative;

(c) Under no circumstances will LEESON Electric be responsible for any expense in connection with any repairs made by anyone other than LEESON Electric or an Authorized Service Center, unless such repairs have been specifically authorized in writing by the LEESON Electric Service and Warranty Department.

(d) In the case of motors, drives, gears and reducers manufactured or marketed by LEESON Electric, LEESON Electric warrants only that such products, when shipped, shall be capable of delivering the service rating as indicated in LEESON Electric's written documents, including quotations and catalogs or as noted on such products, providing such equipment is properly installed, connected, and maintained, correctly lubricated, operating under normal conditions with competent supervision, and within the load limits and voltage range for which it was sold, and provided further that the equipment is free from critical speed, torsional or other type vibration, no matter how induced;

(e) If any prototype or sample was provided to the Buyer, it was used merely to illustrate the general type and quality of goods and not to warrant that goods shipped would be of that type or quality;

(f) UNLESS AUTHORIZED IN WRITING BY A CORPORATE OFFICER OR VICE PRESIDENT, NO AGENT, EMPLOYEE OR REPRESENTATIVE OF LEESON ELECTRIC HAS ANY AUTHORITY TO BIND LEESON ELECTRIC TO ANY AFFIRMATION, REPRESENTATION OR WARRANTY CONCERNING THE GOODS SOLD UNDER THE SALES CONTRACT AND ANY SUCH AFFIRMATION, REPRESENTATION OR WARRANTY HAS NOT FORMED A PART OF THE BASIS OF THE BARGAIN AND SHALL BE UNENFORCEABLE;

(g) THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND/OR ANY OTHER TYPE, WHETHER EXPRESS OR IMPLIED;

(h) Products manufactured and work not performed by LEESON Electric are warranted only to the extent and in the manner that the same are warranted to LEESON Electric by LEESON Electric's vendors, and then only to the extent that LEESON Electric is reasonably able to enforce such warranty. In enforcing such warranty, it is understood LEESON Electric shall have no obligation to initiate litigation unless Buyer undertakes to pay all costs and expenses therefor, including but not limited to Attorney's fees, and indemnifies LEESON Electric against any liability to LEESON Electric's vendors arising out of such litigation;

(i) THE FOREGOING IS LEESON ELECTRIC'S ONLY OBLIGATION AND BUYER'S EXCLUSIVE REMEDY FOR BREACH OF WARRANTY. BUYER'S FAILURE TO SUBMIT A CLAIM AS PROVIDED ABOVE SHALL SPECIFICALLY WAIVE ALL CLAIMS FOR DAMAGES OR OTHER RELIEF INCLUDING BUT NOT LIMITED TO CLAIMS BASED ON LATENT DEFECTS. IN NO EVENT SHALL BUYER BE ENTITLED TO INCIDENTAL, CONSEQUENTIAL, OR SPECIAL DAMAGES, NOR SHALL LEESON ELECTRIC'S LIABILITY EXCEED THE PURCHASE PRICE OF

THE GOODS. ANY ACTION ARISING HEREUNDER OR RELATED HERETO MUST BE COMMENCED WITHIN ONE (1) YEAR AFTER THE CAUSE OF ACTION OCCURS OR IT SHALL BE BARRED, NOTWITHSTANDING ANY STATUTORY PERIOD OF LIMITATIONS TO THE CONTRARY; and

(j) In the event of the resale of any of the goods, in whatever form, Buyer will include the following language in a conspicuous place and in a conspicuous manner in a written agreement covering such resale: "THE MANUFACTURER MAKES NO WARRANTIES OR REPRESENTATIONS, EXPRESS OR IMPLIED, BY OPERATION OF LAW OR OTHERWISE, AS TO THE MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OF THE GOODS SOLD HEREUNDER. BUYER ACKNOWLEDGES THAT IT ALONE HAS DETERMINED THAT THE GOODS PURCHASED HEREUNDER WILL SUITABLY MEET THE REQUIREMENTS OF THEIR INTENDED USE. IN NO EVENT WILL MANUFACTURER BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL OR OTHER DAMAGES."

13. REMEDIES AND LIMITATIONS OF LIABILITY.

In the event Buyer claims LEESON Electric has breached any of its obligations under the Sales Contract, whether of warranty or otherwise, LEESON Electric may request the return of goods and tender to Buyer, at LEESON Electric's option, a replacement shipment of goods. If LEESON Electric so requests the return of the goods, the goods will be redelivered to LEESON Electric in accordance with LEESON Electric's instructions and at Buyer's expense. Except as herein provided, LEESON Electric shall have no further obligation under the Sales Contract. The remedies contained in this paragraph and paragraph 12 hereof shall constitute the sole recourse of Buyer against LEESON Electric for breach of any of LEESON Electric's obligations under the Sales Contract, whether warranty or otherwise.

14. TECHNICAL ADVICE.

Any technical advice furnished or recommendation made by LEESON Electric or any representative of LEESON Electric concerning any use or application of any of the goods is believed to be reliable, but LEESON ELECTRIC MAKES NO WARRANTY, EXPRESSED OR IMPLIED, ON RESULTS TO BE OBTAINED. BUYER ASSUMES ALL RESPONSIBILITY FOR LOSS OR DAMAGE RESULTING FROM THE HANDLING OR USE OF ANY OF THE GOODS.

15. FORCE MAJEURE.

LEESON Electric shall not be liable for failure to perform its obligations under the Sales Contract in whole or in part caused by the occurrence of any contingencies beyond the reasonable control either of LEESON Electric or of suppliers of LEESON Electric. If any such contingency occurs, LEESON Electric may allocate goods and deliveries among LEESON Electric's customers.

16. ASSIGNMENT AND DELEGATION.

No right or interest in the Sales Contract shall be assigned by Buyer without LEESON Electric's prior written consent, and no delegation of any obligation owed, or to the performance of any obligation by Buyer shall be made without LEESON Electric's prior written consent. Any attempt at assignment or delegation shall be wholly void and totally ineffective for all purposes unless made in conformity with this paragraph.

17. PATTERNS AND TOOLING.

Unless otherwise agreed to in writing with Buyer, LEESON Electric shall retain title to and possession of all special tooling, patterns and dies whether paid for by Buyer or not, but such special tooling, patterns and dies that are specifically paid for by Buyer will be held by LEESON Electric exclusively for the manufacture of Buyer's goods for not more than 2 years after the date of Buyer's last order requiring their use. LEESON Electric will exercise reasonable care in handling and storing any tooling, patterns or dies specifically paid for by Buyer, but LEESON Electric shall not be liable for damage or loss thereof.

18. PATENTS. LEESON ELECTRIC MAKES NO REPRESENTATION OR WARRANTY WITH RESPECT TO THE PATENTABILITY OF THE GOODS OR THAT ANY OF THE GOODS WILL BE FREE FROM CLAIMS OF INFRINGEMENT.

Buyer agrees to indemnify and defend LEESON Electric in any such suit, action or proceeding for any claim resulting from actual or alleged infringement of any domestic or foreign letters patent for (i) any feature, construction or design incorporated at Buyer's request in any goods or to adapt such goods to the particular use of Buyer or Buyer's customers or (ii) any additions, changes or adaptations made by Buyer or Buyer's customers after delivery of the goods.

19. CONFIDENTIAL INFORMATION.

All drawings, diagrams, specifications, technical data and other materials furnished by LEESON Electric and identified by LEESON Electric as confidential are and shall remain the exclusive property of LEESON Electric and shall be returned to LEESON Electric upon request. Buyer agrees to treat such information and material as confidential and not to reproduce or disclose such information or materials without LEESON Electric's prior written consent. This paragraph does not apply to any information already known to and readily accessible in the trade or which may become so through no fault of Buyer.

20. CHANGES.

LEESON Electric may, at any time, without notice, make changes (whether in design, material, improvements or otherwise) in any catalog goods, and may discontinue the manufacture of any catalog goods, all in its sole discretion, without incurring any obligations of any kind as a result thereof, whether for failure to fill an order of Buyer or otherwise.

21. CANCELLATION.

The Buyer may not cancel purchase orders without the prior written consent of LEESON Electric. This consent will be conditioned on Buyer's agreement to pay LEESON Electric's cancellation charge. Purchase orders for goods that are substantially complete, as judged by LEESON Electric, may not be cancelled; and will be shipped and invoiced at the price on the order. For goods that are not substantially complete, the cancellation charge shall amount to all costs and expenses incurred by LEESON Electric and arising out of or in connection with Buyer's order, net of recoverability, but in no event less than 10% of the total invoice price of the equipment or more than the total invoice price.

22. INSTALLATION.

Installation of the goods shall be by Buyer unless otherwise specifically stated in the Sales Contract.

23. SEVERABILITY.

If any term or provision contained in the Sales Contract is declared or held invalid by a court of competent jurisdiction, such declaration or holding shall not affect the validity of any other term, clause or provision contained herein.

24. GOVERNING LAW AND LIMITATION.

(a) The formation and performance of the Sales Contract shall be deemed to have been made and governed by the Uniform Commercial Code as adopted in the state of LEESON Electric's principal place of business; (b) Buyer hereby agrees to the jurisdiction of any state or federal court located in the county of LEESON Electric's principal place of business. Buyer waives any objection based on forum non conveniens and any objection to venue of any action instituted hereunder, and consents to the granting of such legal or equitable relief as is deemed appropriate by a court of competent jurisdiction; and (c) LEESON Electric represents that the goods will be produced in compliance with the Fair Labor Standards Act of 1938, as amended.

WARNING

IMPORTANT INFORMATION
PLEASE READ CAREFULLY

CAUTION

This catalog is not intended to provide operational instructions. Appropriate LEESON Electric instructions provided with the motor and precautions attached to the motor should be read carefully prior to installation, operation and/or maintenance of the equipment. Injury to personnel or motor failure may be caused by improper installation, maintenance or operation.

The following WARNING and CAUTION information is supplied to you for your protection and to provide you with many years of trouble free and safe operation of your LEESON Electric product:

WARNING

- Disconnect power and lock out driven equipment before working on a motor.
- Always keep hands and clothing away from moving parts.
- The lifting support on the motor is not to be used to lift the entire machine. Only the motor attached directly to the support may be safely lifted by the support.
- Install and ground per local and national codes.
- Discharge all capacitors before servicing a single phase motor.
- Misapplication of a motor in hazardous environment can cause fire or an explosion and result in serious injury. Only the end user, local authority having jurisdiction, and/or insurance underwriter are qualified to identify the appropriate class(es), group(s), division and temperature code LEESON Electric personnel cannot evaluate or recommend what motors may be suitable for use in hazardous environments. If a motor is name plated for hazardous locations, do not operate the motor without all of the grease and drain plugs installed.
- Never attempt to measure the temperature rise of a motor by touch. Temperature rise must be measured by thermometer, resistance, resistance, imbedded detector or thermocouple.
- Motors with automatic reset thermal protectors will automatically restart when the protector temperature drops sufficiently. Do not use motors with automatic reset thermal protectors in applications where automatic restart will be hazardous to personnel or equipment.
- Motors with manual reset thermal protectors may start unexpectedly after the protector trips when the surrounding air is at +20˚ Fahrenheit or lower. If the manual reset protector trips, disconnect motor from its power supply. After the protector cools (five minutes or more), it can be reset and power may be applied to the motor.
- Connect all protective device leads, marked P1, P2, etc., per instructions supplied with the motor.
- Operation of a motor at other than its nameplate rating may result in fire, damage to equipment or serious injury to personnel.
- For safety, Buyer or User should provide protective guards over all shaft extensions and any moving apparatus mounted thereon. The User is responsible for checking all applicable safety codes in his area and providing suitable guards. Failure to do so may result in bodily injury and/or damage to equipment.

CAUTION

- Consult qualified personnel with questions and all electrical repairs must be performed by trained and qualified personnel only.
- For motors nameplated as “belted duty only”, do not operate the motor without belts properly installed.
- Motors and/or driven equipment should not be operated faster than their rated speed.
- For inverter applications, follow the inverter manufacturer’s installation guidelines.
- Make sure the motor is properly secured and aligned before operation.

In the event of the resale of any of the goods, in whatever form, Resellers/Buyers will include the following language in a conspicuous place and in a conspicuous manner in a written agreement covering such sale:

> The manufacturer makes no warranty or representations, express or implied, by operation of law or otherwise, as to the merchantability or fitness for a particular purpose of the goods sold hereunder. Buyer acknowledges that it alone has determined that the goods purchased hereunder will suitably meet the requirements of their intended use. In no event will the manufacturer be liable for consequential, incidental or other damages. Even if the repair or replacement remedy shall be deemed to have failed of its essential purpose under Section 2-719 of the Uniform Commercial Code, the manufacturer shall have no liability to Buyer for consequential damages.

Resellers/Buyers agree to also include this entire document including the warnings and cautions above in a conspicuous place and in a conspicuous manner in writing to instruct users on the safe usage of the product.

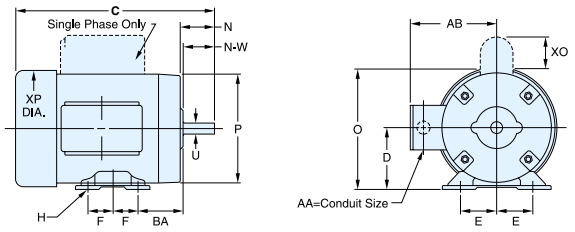
This information should be read together with all other printed information supplied by LEESON Electric.

For more information contact: **LEESON Electric**, Subsidiary of REGAL-BELOIT CORPORATION, 2100 Washington Street, Grafton, WI 53024
Phone: 262-377-8810 or Fax: 262-377-3440

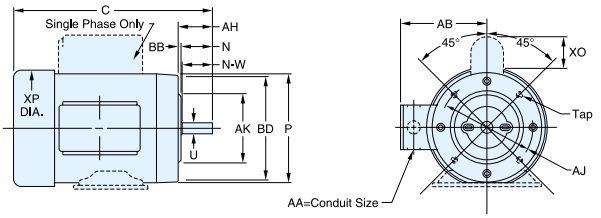
CONDENSED DIMENSIONS
NEMA STEEL FRAME MOTORS

The condensed dimensions shown on these pages are for general reference only and are not for construction. The overall length or "C" dimension for each catalog item is included in this catalog. Certified drawings of all ratings are available for construction purposes.

RIGID MOUNT



C FACE



NEMA STEEL FRAME DIMENSIONS (Inches)

Frame Size ▲	D	E	F	H	N	O	P	U	N-W	AA	AB	AH	AJ	AK	BA	BB	BD	XO	XP	TAP **	KEY
42	2 5/8	1 3/4	27/32	9/32 Slot	1 1/4	5 1/16	4 7/8	3/8	1 1/8	3/8	4 1/2	1 5/16	3 3/4	3	2 1/16	1/8	4 7/8	1 5/8	5 1/8	1/4-20	3/64 Flat
48	3	2 1/8	1 3/8	11/32 Slot	1 9/16	5 13/16	5 19/32	1/2	1 1/2	1/2	4 7/8	1 11/16	3 3/4	3	2 1/2	1/8	5	2 1/4	5 7/8	1/4-20	3/64 Flat
S56	3 1/2	2 7/16	1 1/2	11/32 Slot	1 15/16	6 5/16	5 19/32	5/8	1 7/8	1/2	4 7/8	2 1/16	5 7/8	4 1/2	2 3/4	1/8	6 1/2	2 1/4	5 7/8	3/8-16	3/16
56						6 13/16	6 19/32				5 5/16								7 5/32		
143T	3 1/2	2 3/4	2	11/32	2 3/8	6 13/16	6 19/32	7/8	2 1/4	3/4	5 5/16	2 1/8	5 7/8	4 1/2	*2 1/4	1/8	6 1/2	2 1/4	7 5/32	3/8-16	3/16
145T			2 1/2																		
182T	4 1/2	3 3/4	2 1/4	13/32	2 7/8	8 3/4	8 15/32	1 1/8	2 3/4	3/4	6 7/16	2 5/8	7 1/4	8 1/2	*2 3/4	1/4	8 7/8	2 1/4	9 7/32	1/2-13	1/4
184T			2 3/4																		
S213T	5 1/4	4 1/4	2 3/4	13/32	3 1/2	9 27/32	8 13/32	1 3/8	3 3/8	3/4	7 19/32	3 1/8	7 1/4	8 1/2	*3 1/2	1/4	8 7/8	2 1/4	9 7/32	1/2-13	5/16
213T			2 3/4		—	10 5/8	9 21/32										8 5/8		10 13/16		
215T			3 1/2																		

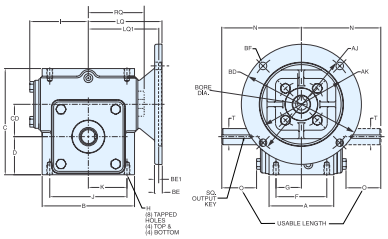
* 143-5TC NEMA C face BA dimension is 2¾". 182-4TC NEMA C face BA dimension is 3½". 213-5TC NEMA C face BA dimension is 4¼".
** 326TC and smaller have 4 mounting holes in NEMA C face, 364TC and larger have 8 mounting holes.
▲ Blue shading denotes dimensions established by NEMA standard MG1, others are unique to LEESON, and will vary with each manufacturer.

NEMA SHAFT AND KEYWAY DIMENSIONS ■ (Inches)

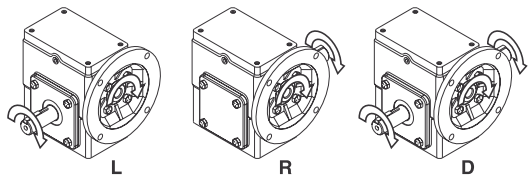
NEMA SHAFT (U)	KEYWAY DIMENSIONS (R)	KEYWAY DIMENSIONS (S)	NEMA SHAFT (U)	KEYWAY DIMENSIONS (R)	KEYWAY DIMENSIONS (S)
3/8	21/64	FLAT	1-7/8	1-19/32	1/2
1/2	29/64	FLAT	2-1/8	1-27/32	1/2
5/8	33/64	3/16	2-3/8	2-1/64	5/8
7/8	49/64	3/16	2-1/2	2-3/16	5/8
1-1/8	63/64	1/4	2-7/8	2-29/64	3/4
1-3/8	1-13/64	5/16	3-3/8	2-7/8	7/8
1-5/8	1-13/32	3/8	3-7/8	3-5/16	1

■ S is keyway width.
U minus R is keyway depth.

STYLE BMQ



ASSEMBLIES



REVERSE ALL ARROWS FOR OPPOSITE INPUT SHAFT ROTATION. CONTACT FACTORY FOR OTHER MOUNTINGS OR ASSEMBLY POSITIONS.

Refer to MOD-SQUAD assembly notes on page 140.

STYLE BMQ DIMENSIONS (Inches)

Series	A	B	C	D	CD	F	G	H Tap Size	H Depth	I	J	K	LQ 56/140	LQ1 180	N	O	RQ 56/140	RQ 180/210	T +0.000 -0.001	Output Key
613	2.75	3.90	4.66	1.72	1.33	2.00	1.00	5/16-18 UNC	.50	2.67	3.25	1.63	3.42	N/A	4.00	1.95	2.78	N/A	0.625	3/16 x 1.50
618	3.50	5.00	5.75	2.06	1.75	2.75	1.38	5/16-18 UNC	.50	3.17	4.18	2.09	3.99	N/A	4.31	1.88	3.35	N/A	0.875	3/16 x 1.50
621	3.63	5.82	6.38	2.28	2.06	2.88	1.44	3/8-16 UNC	.60	3.58	5.00	2.50	4.40	N/A	4.68	2.19	3.76	N/A	1.000	1/4 x 1.75
624	3.88	6.00	6.94	2.50	2.38	2.88	1.44	3/8-16 UNC	.65	3.66	5.00	2.50	4.63	5.21	5.09	2.45	4.00	4.39*	1.125	1/4 x 2.00
626	4.25	7.20	8.00	2.94	2.63	3.38	1.69	3/8-16 UNC	.65	4.31	6.38	3.19	5.23	5.81	5.63	2.81	4.60	4.99*	1.125	1/4 x 2.00
632	5.88	9.00	9.38	3.50	3.25	4.00	2.00	7/16-14 UNC	.66	4.94	7.50	3.75	6.56	7.00	7.06	3.25	5.84	6.09*	1.375	5/16 x 2.44
638	6.38	10.00	10.44	3.88	3.75	4.75	2.38	1/2-13 UNC	.81	5.50	8.50	4.25	7.06	7.50	7.75	3.50	6.47**	6.75	1.625	3/8 x 2.25

* N/A in 213-5TC Frame Size
** N/A in 56C Frame Size

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