



# SUB-FHP AC GEARMOTORS

## PARALLEL SHAFT GEARMOTORS

### 12-100 In-Lbs Output Torque

#### Design Specifications:

Single phase gearmotors, totally enclosed for continuous duty, general purpose applications. Permanent split capacitor designs are rated for 115 VAC 60 hertz input, and have starting torques equal to the running torques. The inline gearing is of precision machined steel, with first stage steel helical gear followed by spur type gears. Lubrication is by semi-fluid grease, reducing possibility of leakage and providing permanent lubrication. Output shafts have needle bearings for high load capacities. Shafts are hardened steel.

#### Application Notes:

These gearmotors are designed for mounting at any angle, but shaft up with motor below should be avoided to prevent leakage of lubricant into the motor should the motor's shaft seal fail. If these gearmotors are stalled, gearhead damage may result, especially in the ratios of 60:1 and higher. Provisions to limit the torque are recommended. The torque values listed are the recommended full load torque values for reasonable gear life.

Overhung load capacities shown are at center of output shaft. All PZ Series gearmotors are supplied with continuous duty "run" capacitor. **Conduit box not supplied with motor.** See page 171 for optional conduit box.

Model PZ gearmotors have the same mounting dimensions as Bodine model D and Z gearmotors, Bison 100 gearmotors, and Baldor/Boehm PSS, plus many of the Dayton gearmotors.

For additional information, see Bulletin 1830.



## PZ SERIES AC GEARMOTORS

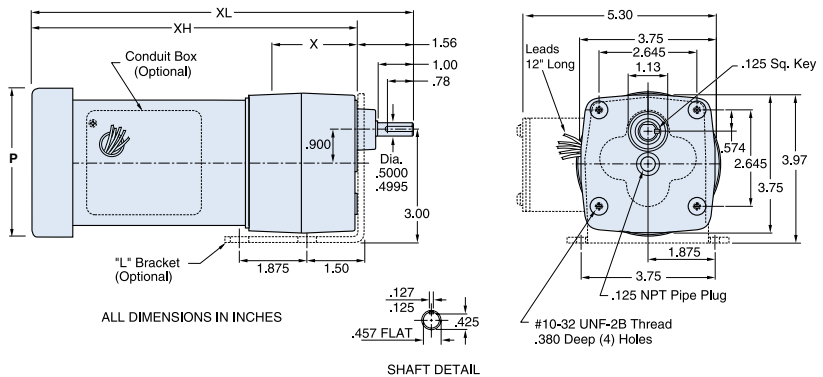
### PARALLEL SHAFT • TEFC • 115V • SINGLE PHASE

### 40°C AMBIENT • 1.0 SERVICE FACTOR

Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalogue Number	List Price▲	Gearmotor Type & Frame	Ratio to 1	F.L. Amps 115 VAC	Over-hung Load (Lb.)	DIMENSIONS				Capacitor Mfd. 240 VAC
									P	X	XL	XH	
2	100	1/15	M1125050#	\$662	PZ5-31	900	0.4	155	3.07	3.23	8.71	7.15	3.0
9	100	1/15	M1125127	662	PZ4-31	180	0.9	155	3.88	3.23	10.42	8.86	10.0
19	100	1/15	M1125128	662	PZ4-31	90	0.9	155	3.88	2.23	10.42	8.86	10.0
28	100	1/15	M1125129	670	PZ3-31	60	0.9	155	3.88	2.43	9.62	8.06	10.0
57	56	1/15	M1125130	684	PZ3-31	30	0.9	171	3.88	2.43	9.62	8.06	10.0
94	36	1/15	M1125131	535	PZ3-31	18	0.9	171	3.88	2.43	9.62	8.06	10.0
142	24	1/15	M1125132	535	PZ2-31	12	0.9	180	3.88	2.13	9.32	7.76	10.0
283	12	1/15	M1125133	560	PZ2-31	6	0.9	180	3.88	2.13	9.32	7.76	10.0

# TENV enclosure  
▲ Use "A" discount symbol.

### PZ SERIES - AC



## BODINE/BISON/DAYTON

### DIRECT INTERCHANGE

#### QUICK REFERENCE

GEARMOTOR CROSS REFERENCE	Page 206
"L" BRACKET AND CONDUIT BOX	171

# SUB-FHP AC GEARMOTORS

## PARALLEL SHAFT GEARMOTORS



### 30-391 In-Lbs Output Torque



#### Design Specifications:

Single phase gearmotors, totally enclosed for continuous duty, general purpose applications. Permanent split capacitor designs are rated for 115/230VAC, 60/50 Hertz input, and have starting torques equal to the running torques. The in-line gearing is of precision machined steel, with first stage steel helical gear followed by spur type gears. Lubrication is by semi-fluid grease, reducing possibility of leakage and providing permanent lubrication. Output shafts have needle bearings for high load capacities. Shafts are hardened steel.

#### Application Notes:

These gearmotors are designed for mounting at any angle, but shaft up with motor below should be avoided to prevent leakage of lubricant into the motor should the motor's shaft seal fail. If these gearmotors are stalled, gearhead damage may result, especially in the ratios of 60:1 and higher. Provisions to limit the torque are recommended. The torque values listed are the recommended full load torque values for reasonable gear life. Overhung load capacities shown are at center of output shaft. All P240 gearmotors are supplied with continuous duty "run" capacitor. **Conduit box not supplied with motor.** See page 171 for optional conduit box.

Model P240 gearmotors have the same mounting dimensions as Bison's 224 and 242 gearmotors and many Dayton gearmotors.

For additional information, see Bulletin 1830.

Please contact LEESON for output speeds not listed.

### P240 SERIES AC GEARMOTORS

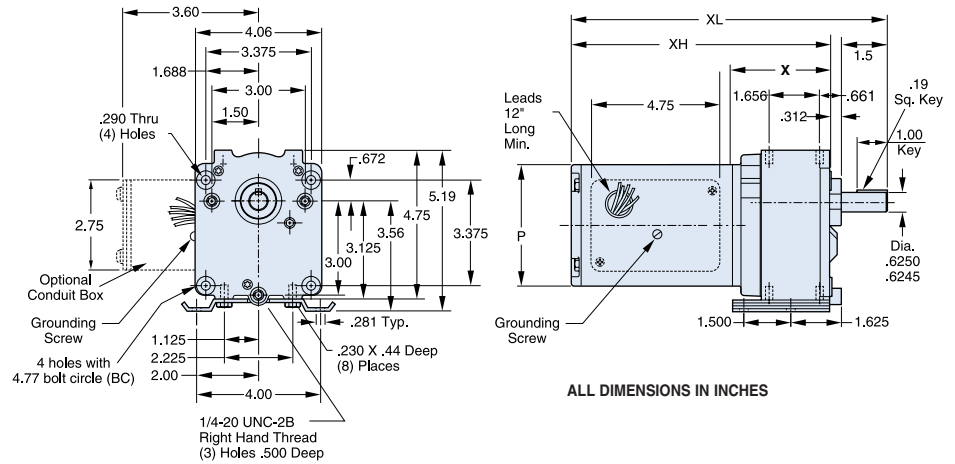
#### PARALLEL SHAFT • TOTALLY ENCLOSED • 115/230V SINGLE PHASE • 40°C AMBIENT • 1.0 SERVICE FACTOR

Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalogue Number	List Price▲	Gearmotor Type & Frame	Ratio to 1	F.L. Amps 115V AC	Over-hung Load (Lb.)	DIMENSIONS				Capacitor Mfd. 240 VAC
									P	X	XL	XH	
8	345	1/15	M1145029	\$726	P243-38D	216	1.0	491	3.85	3.50	10.46	8.96	7.5
15	250	1/15	M1145023	750	P243-38D	114	1.0	407	3.85	3.50	10.46	8.96	7.5
16	391	1/6	M1145030**	791	P243-38F	103	2.1	399	4.43	3.50	12.13	10.63	15.0
30	135	1/15	M1145024	714	P242-38D	52	1.0	330	3.85	3.50	10.46	8.96	7.5
30	295	1/6	M1145031**	791	P243-38F	58	2.1	330	4.43	3.50	12.13	10.63	15.0
40	219	1/6	M1145032**	814	P243-38F	43	2.1	303	4.43	3.50	12.13	10.63	15.0
45	92	1/15	M1145025	714	P242-38D	35	1.0	292	3.85	3.50	10.46	8.96	7.5
60	157	1/6	M1145033**	740	P242-38D	29	2.1	268	4.43	3.50	12.13	10.63	15.0
70	61	1/15	M1145026	714	P242-38D	23	1.0	256	3.85	3.50	10.46	8.96	7.5
90	103	1/6	M1145034**	740	P242-38D	19	2.1	237	4.43	3.50	12.13	10.63	15.0
97	43	1/15	M1145027	714	P242-38D	16.5	1.0	232	3.85	3.50	10.46	8.96	7.5
139	30	1/15	M1145028	714	P242-38D	11.5	1.0	208	3.85	3.50	10.46	8.96	7.5
156	60	1/6	M1145035**	740	P242-38D	10.6	2.1	201	4.43	3.50	12.13	10.63	15.0

▲ Use "A" discount symbol.  
\*\* TEFC enclosure.

## BISON/DAYTON DIRECT INTERCHANGE

### P240 SERIES





# SUB-FHP AC GEARMOTORS

## PARALLEL SHAFT GEARMOTORS

### 25-341 In-Lbs Output Torque

**Design Specifications:**  
Sub-FHP AC gearmotors. Totally enclosed for continuous duty, general purpose applications. Rated for 50/60 Hz input.



Gearbox has rugged aluminum die cast housing, for maximum gear and bearing support. Precision machined gearing, hardened for maximum load capability. All gearing designed and rated to AGMA Class 9 standards and to withstand momentary shock overload of 200%. Oversized output bearings for greater overhung load capacity and longer life. High-carbon alloy output shaft provides maximum strength and rigidity. All needle bearing journals are precision-ground after heat treating, to provide maximum finish and fit. Single lip, spring loaded, heavy-duty industrial oil seals help keep lubricant in and dirt out. Gears and bearings are splash lubricated with permanent, heavy-duty gear oil.

#### Application Notes:

These gearmotors are designed for mounting at any angle, but shaft-up with motor below gearhead is not recommended.

Run capacitor supplied with gearmotor at no additional cost. **Three phase models include conduit box.** Single phase models do *not*. See page 171 for optional conduit box.

Overhung load capacities shown are at center of output shaft.

Model PE350 gearmotors have the same mounting dimensions as Bodine's "E" box and many Baldor/Boehm gearmotors.

### PE350 SERIES AC GEARMOTORS

#### SINGLE PHASE • PARALLEL SHAFT • TEFC • 115/230V

Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalogue Number	List Price▲	Type & Frame	Ratio to 1	F.L. Amps 115V AC	Overhung Load (lbs.)	DIMENSIONS XL XH Inches		Capacitor Mfd. 240VAC
5	310	1/2	096000#	\$734	PE353-42	336	1.3	565	11.36	9.36	10.0
9	341	1/2	096001#	704	PE353-42	180	1.3	491	11.36	9.36	10.0
14	330	1/2	096002#	713	PE353-42	124	1.3	459	11.36	9.36	10.0
19	250	1/2	096003#	718	PE353-42	91	1.3	374	11.36	9.36	10.0
29	270	1/6	096004	747	PE353-42	58	3.2	327	13.32	11.32	15.0
34	250	1/6	096005	765	PE353-42	50	3.2	330	13.32	11.32	15.0
40	180	1/6	096006	753	PE353-42	43	3.2	303	13.32	11.32	15.0
59	135	1/6	096007	706	PE352-42	29	3.2	267	13.32	11.32	15.0
75	90	1/6	096008	712	PE352-42	23	3.2	256	13.32	11.32	15.0
113	68	1/6	096009	712	PE352-42	15	3.2	222	13.32	11.32	15.0
160	45	1/6	096010	702	PE352-42	10	3.2	196	13.32	11.32	15.0
340	25	1/6	096011	715	PE352-42	5	3.2	190	13.32	11.32	15.0

#### Hi-Torque Single Phase PE350 Gearmotors With Capacitor Start Motors

58	320	1/3	096049	597	PE353-42	30	7.2	300	14.56	12.56	...
85	218	1/3	096050	550	PE353-42	20	7.2	300	14.56	12.56	...
173	109	1/3	096051	552	PE352-42	10	1.6	300	13.81	11.81	...
345	55	1/3	096052	555	PE353-42	5	7.2	300	14.56	12.56	...

# TENV enclosure

▲ Use "A" discount symbol for all gearmotors.

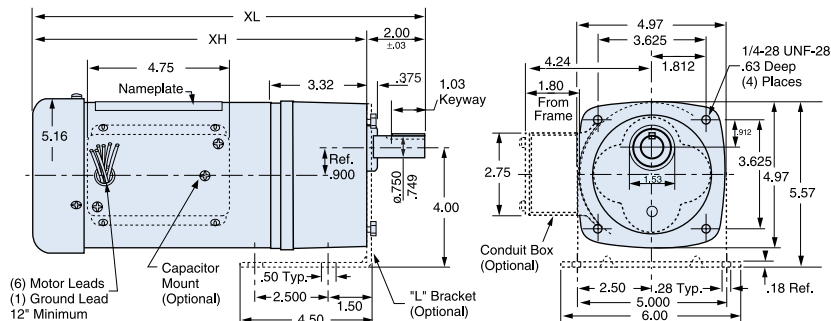
### PE350 SERIES AC GEARMOTORS

#### THREE PHASE • PARALLEL SHAFT • TEFC • 230/460V

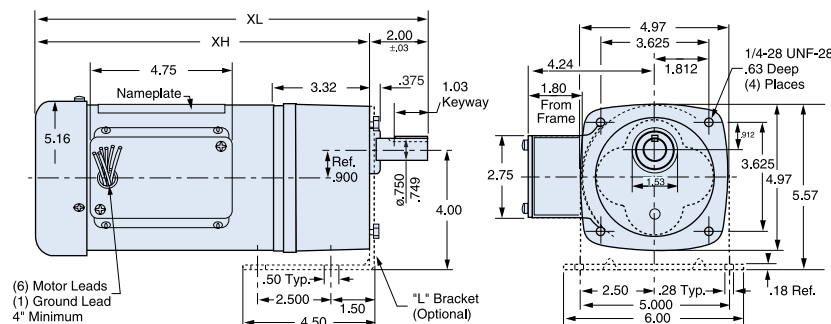
Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalogue Number	List Price▲	Type & Frame	Ratio to 1	F.L. Amps 230V AC	Overhung Load (lbs.)♦	DIMENSIONS XL XH Inches	
58	320	1/3	096013	\$786	PE353-42	30	1.6	300	13.81	11.81
85	218	1/3	096014	739	PE352-42	20	1.6	300	13.81	11.81
173	109	1/3	096015	734	PE352-42	10	1.6	300	13.81	11.81
345	55	1/3	096016	739	PE352-42	5	1.6	300	13.81	11.81

**BODINE  
DIRECT  
INTERCHANGE**

#### PE350 SINGLE PHASE



#### PE350 THREE PHASE



ALL DIMENSIONS IN INCHES

Catalog numbers in blue are NEW items.

**70-1105 In-Lbs Output Torque**



**Design Specifications:**

Fractional horsepower AC gearmotors. Totally enclosed for continuous duty, general purpose applications. Rated for 60 Hz input.

Gearbox has rugged aluminum die cast housing, for maximum gear and bearing support. Precision machined gearing, hardened for maximum load capability. All gearing designed and rated to AGMA Class 9 standards and to withstand momentary shock overload of 200%. Oversized output bearings for greater overhung load capacity and longer life. High-carbon alloy output shaft provides maximum strength and rigidity. All needle bearing journals are precision-ground after heat treating, to provide maximum finish and fit. Heavy-duty industrial oil seals help keep lubricant in and dirt out. Gears and bearings are splash lubricated with permanent, heavy-duty gear oil.

**Application Notes:**

These gearmotors are designed for mounting at any angle, but shaft-up with motor below gearhead is not recommended. P1100 AC gearmotors have the same mounting dimensions as Bison 482 gearmotors and many Dayton gearmotors.

Three phase units suitable for inverter duty.

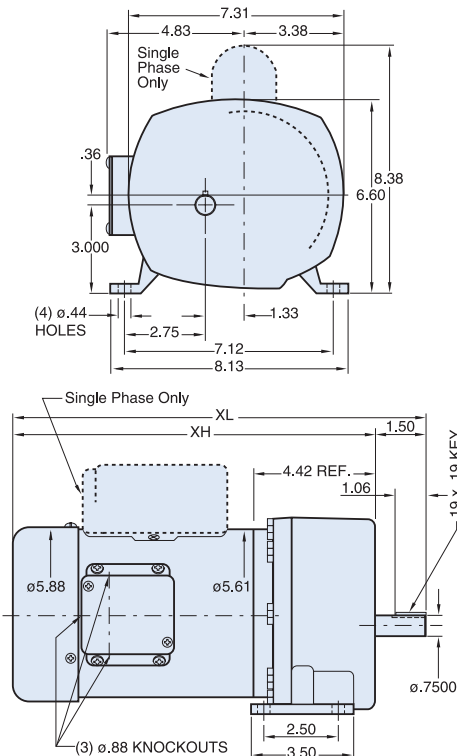
**Both single and three phase models include conduit box.**

For additional information, see Bulletin 1830.

**P1100 SERIES AC GEARMOTORS**  
SINGLE PHASE • FRACTIONAL HP • TEFC • 115/230V

Output RPM	F.L. Torque (Lb.in.)	Input HP	Catalogue Number	List Price▲	Type & Frame	Ratio to 1	F.L. Amps 115V AC	Overhung Load (lbs.)	DIMENSIONS	
									XL	XH
8	975	¼	107000	\$1203	P1103-48	212	5.4	700	13.80	12.30
12	1030	¼	107004	1213	P1103-48	143	5.4	700	13.80	12.30
18	800	¼	107003	1213	P1103-48	95	5.4	700	13.80	12.30
26	569	¼	107002	1213	P1103-48	66	5.4	650	13.80	12.30
59	248	¼	107005	1161	P1102-48	29	5.4	625	13.80	12.30
133	114	¼	107001	1161	P1102-48	13	5.4	525	13.80	12.30
18	1089	⅓	107006	1222	P1103-48	95	6.2	700	13.80	12.30
26	752	⅓	107012	1222	P1103-48	66	6.2	650	13.80	12.30
41	461	⅓	107011	1170	P1102-48	42	6.2	650	13.80	12.30
59	330	⅓	107010	1170	P1102-48	29	6.2	625	13.80	12.30
91	224	⅓	107009	1170	P1102-48	19	6.2	575	13.80	12.30
157	125	⅓	107008	1170	P1102-48	11	6.2	500	13.80	12.30
288	70	⅓	107007	1170	P1102-48	6	6.2	400	13.80	12.30
22	1105	½	107013	1261	P1103-48	79	8.8	700	14.30	12.80
41	700	½	107017	1220	P1102-48	42	8.8	650	14.30	12.80
59	496	½	107016	1209	P1102-48	29	8.8	625	14.30	12.80
91	336	½	107015	1209	P1102-48	19	8.8	575	14.30	12.80
133	229	½	107014	1209	P1102-48	13	8.8	525	14.30	12.80

**BISON/DAYTON**  
DIRECT INTERCHANGE



ALL DIMENSIONS IN INCHES

**P1100 SERIES AC GEARMOTORS**  
THREE PHASE • FRACTIONAL HP • TEFC • 230/460V

Output RPM	F.L. Torque (Lb.in.)	Input HP	Catalogue Number	List Price▲	Type & Frame	Ratio to 1	F.L. Amps 230V AC	Overhung Load (lbs.)	DIMENSIONS	
									XL	XH
18	1089	⅓	107025	\$1461	P1103-48	95	1.6	700	13.30	11.80
26	752	⅓	107026	1461	P1103-48	66	1.6	650	13.30	11.80
41	461	⅓	107027	1397	P1102-48	42	1.6	650	13.30	11.80
59	330	⅓	107028	1397	P1102-48	29	1.6	625	13.30	11.80
91	224	⅓	107029	1397	P1102-48	19	1.6	575	13.30	11.80
157	125	⅓	107030	1397	P1102-48	11	1.6	500	13.30	11.80
288	70	⅓	107031	1397	P1102-48	6	1.6	400	13.30	11.80
22	1105	½	107032	1509	P1103-48	79	2.0	700	13.80	12.30
41	700	½	107033	1446	P1102-48	42	2.0	650	13.80	12.30
59	496	½	107034	1446	P1102-48	29	2.0	625	13.80	12.30
91	336	½	107035	1446	P1102-48	19	2.0	575	13.80	12.30
133	229	½	107036	1446	P1102-48	13	2.0	500	13.80	12.30
288	100	½	107037	1446	P1102-48	6	2.0	400	13.80	12.30

▲ Use "A" discount symbol for all gearmotors.

**QUICK REFERENCE**

GEARMOTOR CROSS REFERENCE	Page 206
"L" BRACKET AND CONDUIT BOX	171



# SUB-FHP AC GEARMOTORS

## RIGHT-ANGLE SHAFT GEARMOTORS

### 14-113 In-Lbs Output Torque

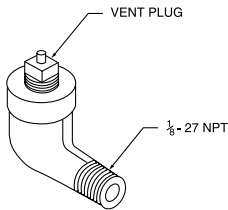
#### Design Specifications:

Single phase gearmotors, totally enclosed for continuous duty, general purpose applications. Permanent split capacitor motors rated 115/230 VAC 60/50 hertz input, and have starting torque equal to the running torque. This worm-type right-angle gearing features hardened, steel worm with bronze worm wheel for long life and quiet operation. Precision machined aluminum housings are used. Gearbox has all ball bearings. The housing is sealed and lubrication is permanent with an oil bath. The output shaft is field interchangeable from left hand style to right hand style.

#### Application Notes:

For optimum seal life, these right angle gearmotors have a lubrication breather positioned for horizontal mounting. For other mountings, the breather-plug must be reoriented by using a 90° NPT taper pipe elbow (see drawing). However, the motor portion of the gearmotor should never be mounted below the gearhead.

Overhung load capacities shown are at center of output shaft. These motors are supplied with continuous duty "run" capacity. **Conduit box not supplied with motor.** See page 171 for optional conduit box and base kit.



Please contact LEESON for output speeds not listed. For additional information, see Bulletin 1830.

**BODINE/DAYTON**  
DIRECT INTERCHANGE

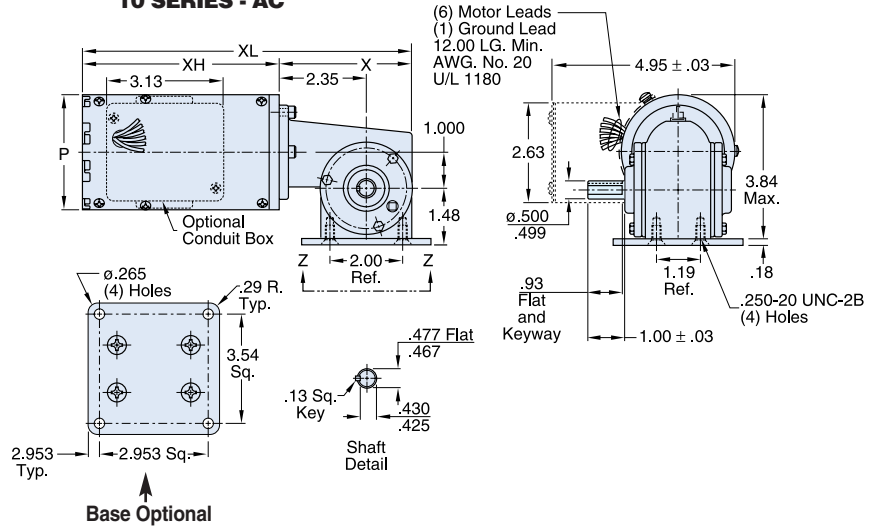
### RIGHT-ANGLE AC GEARMOTORS

#### TOTALLY ENCLOSED • 115/230 V • SINGLE PHASE

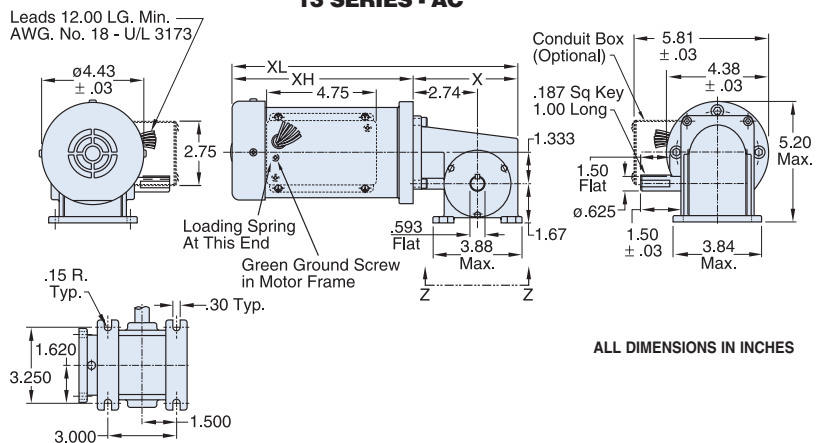
Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalogue Number	List Price▲	Gearmotor Type & Frame	Ratio to 1	F.L. Amps 115V AC	Over-hung Load (Lb.)	DIMENSIONS				Capacitor Mfd. 250 VAC
									P Dia.	X Inches	XL	XH	
28	37	1/15	M1125080	\$663	10F60-31C	60	0.9	185	3.07	3.60	8.91	5.31	10.0
43	34	1/15	M1125081	663	10F40-31C	40	0.9	185	3.07	3.60	8.91	5.31	10.0
58	40	1/15	M1125082	663	10F30-31C	30	0.9	185	3.07	3.60	8.91	5.31	10.0
85	24	1/15	M1125083	663	10F20-31C	20	0.9	185	3.07	3.60	8.91	5.31	10.0
173	14	1/15	M1125084	663	10F10-31C	10	0.9	185	3.07	3.60	8.91	5.31	10.0
29	110	1/6	M1145037**	811	13F60-38F	60	2.0	235	3.85	4.50	12.31	7.81	15.0*
43	113	1/6	M1145038**	811	13F40-38F	40	2.0	235	3.85	4.50	12.31	7.81	15.0*
57	95	1/6	M1145082**	811	13F30-38F	30	2.0	235	3.85	4.50	12.31	7.81	15.0*
83	75	1/6	M1145039**	811	13F20-38F	20	2.0	235	3.85	4.50	12.31	7.81	15.0*
170	43	1/6	M1145040**	811	13F10-38F	10	2.0	235	3.85	4.50	12.31	7.81	15.0*
340	23	1/6	M1145041**	811	13F05-38F	5	2.0	235	3.85	4.50	12.31	7.81	15.0*

▲ Use "A" discount symbol.  
\*\* TEFC enclosure.  
\* Capacitor Mfd. 300 VAC

#### 10 SERIES - AC



#### 13 SERIES - AC



ALL DIMENSIONS IN INCHES



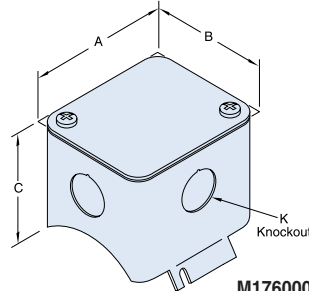
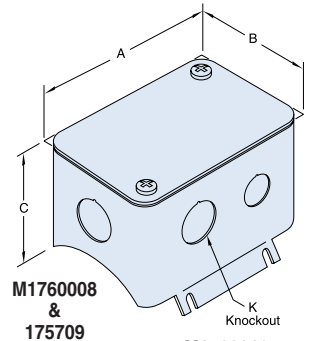
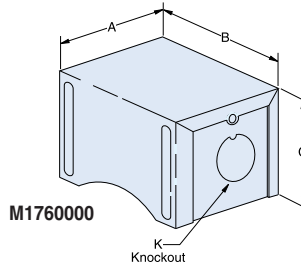


**SUB-FHP GEARMOTOR CONDUIT BOXES**

Optional steel conduit or junction boxes are available. The boxes are painted and mount in holes using screws provided with all stock gearmotors.

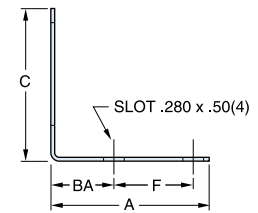
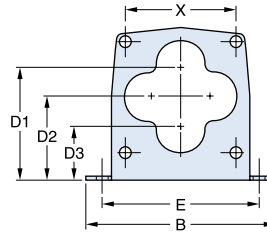
Catalogue Number	For Motor Frames	A	DIMENSIONS (Inches)			List Price	Disc. Sym.
			B	C	K		
<b>M1760000*</b>	25	2.09	2.45	2.23	0.875	\$57	A
<b>M1760021</b>	30/31	3.13	2.63	2.28	0.875	36	A
<b>M1760007</b>	34	3.13	2.63	2.28	0.875	36	A
<b>M1760012</b>	38	4.75	2.75	2.00	1.125	56	A
<b>175893</b>	42	4.75	2.75	2.00	1.125	56	A

**Note:** \* For any gearmotor catalogue number beginning with M1115XXX, must clarify from gearmotor type and frame columns as listed on catalog pages 156, 157 and 161. For example, if gearmotor type and frame lists P303-30E, then use 30 frame conduit box kit M1760021. If gearmotor type and frame lists 10F60-25, then use conduit box kit M1760000.



**M1760012 & 175893**

**M1760007 & M1760021**



**SUB-FHP GEARMOTOR "L" MOUNTING BRACKET**

Optional "L" brackets can be used to mount parallel shaft type PZ or PE350 gearmotors. Of steel construction, they are painted and include screws for mounting to the motor, but not the application.

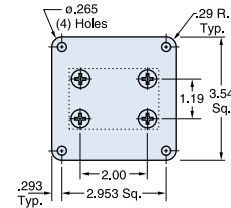
Catalogue Number	For Motors	A	B	C	DIMENSIONS (Inches)				BA	F	E	List Price	Disc. Sym.
					D <sup>1</sup>	D <sup>2</sup>	D <sup>3</sup>	X					
<b>M1760003*</b>	PZ Gearmotors	3.75	4.50	3.935	3.00	2.25	1.50	2.645	1.50	1.875	3.75	\$40	A
<b>M1760011**</b>	PE350 Gearmotors	4.50	6.00	5.520	4.00	3.10	2.20	3.625	1.50	2.500	5.00	54	A
<b>M1760029Δ</b>	PE350 Gearmotors	4.50	6.00	5.520	4.00	3.10	2.20	3.625	1.50	2.500	5.00	64	A

\* Maximum radial load no greater than 50 lbs. This bracket can also be used on DC motors in the 34 frame having the style C mounting.  
 \*\* Maximum radial load no greater than 200 lbs.  
 Δ Washguard PE350 L-Bracket

**SUB-FHP GEARMOTOR RIGHT-ANGLE BASE KIT**

This Optional Base Kit can be used with the 10 Series right-angle gearmotors. (Includes screws for mounting to gearbox, but not the application.)

Catalogue Number	List Price	Disc. Sym.
<b>M1760006</b>	\$45	A



**CAPACITORS FOR SUB-FHP RIGHT-ANGLE AC GEARMOTORS**

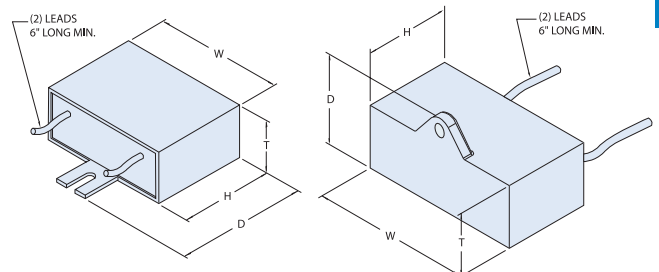
MFD Rating	Voltage Rating	Catalogue Number	List Price	Disc. Sym.	DIMENSIONS (Inches)			
					W	H	T	D
10.0	250	<b>003043.05</b>	\$49	A	1.89	1.14	0.75	1.14
15.0	300	<b>003042.05</b>	56	A	2.28	1.61	1.14	2.48

**CAPACITORS FOR SUB-FHP AC PZ SERIES GEARMOTORS**

MFD Rating	Voltage Rating	Catalogue Number	List Price	Disc. Sym.	DIMENSIONS (Inches)			
					W	H	T	D
3.0	250	<b>003043.01</b>	\$18	A	1.22	0.93	0.57	0.97
10.0	250	<b>003043.05</b>	49	A	1.89	1.14	0.75	1.14

**CAPACITORS FOR SUB-FHP P240 & PE350 AC GEARMOTORS**

Gearmotor Type	MFD Rating	Voltage Rating	Catalogue Number	List Price	Disc. Sym.	DIMENSIONS (Inches)			
						W	H	T	D
P240	7.5	250	<b>003042.02</b>	\$18	A	1.89	1.14	0.75	1.14
PE350	10.0	250	<b>003042.06</b>	87	A	1.89	1.24	0.89	2.11
P240	15.0	300	<b>003042.05</b>	56	A	2.28	1.61	1.14	2.48
PE350	15.0	250	<b>003042.04</b>	56	A	2.28	1.46	0.93	2.33



### Design Specifications:

Three phase motors totally enclosed for continuous duty, general purpose applications.



Standard on all these ratings is the exclusive Inverter Rated Insulation System (IRIS). This provides superior protection against voltage spikes induced by variable frequency drives.

Many superior mechanical features for both the motor and gearbox. Double shielded ball bearings in the motor. Needle bearings in the parallel shaft gearboxes and ball bearings in the Right angle (worm) gearboxes. Steel conduit box provided as Standard. Complete gearmotor furnished with high gloss hardened black enamel paint.

### Application Notes:

These motors are designed with high temp insulation (Class F) to avoid over heating when operated with a PWM inverter down to a 10:1 speed range from the printed gearmotor output RPM.

Refer to pages 168 to 170 detailing non-horizontal mounting.

The torque values listed are the recommended full load torque values for reasonable gear life.

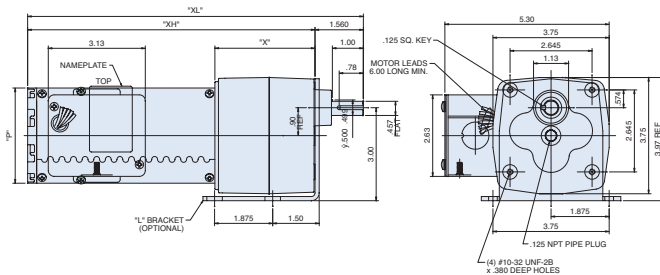
Overhung load capacities shown are at the center of the output shaft. See page 171 for optional "L" bracket kits for PZ and PE350 units. Please contact LEESON for output speeds not listed.

## PZ SERIES AC GEARMOTORS

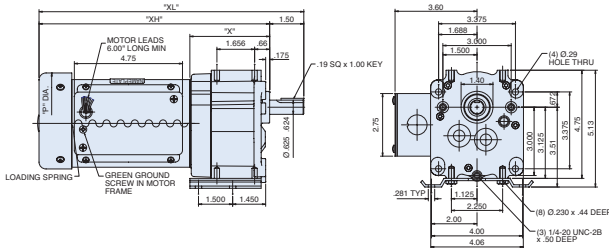
### THREE PHASE • 230V • TENV

Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	List Price▲	Gearmotor Type & Frame	Ratio to 1	F.L. Amps 230V AC	Over-hung Load (Lb.)	DIMENSIONS			
									P	X	XL	XH
19	100	1/15	<b>M1125282</b>	\$592	PZ4-31	90	0.4	155	3.07	3.23	10.83	9.27
57	56	1/15	<b>M1125283</b>	557	PZ3-31	30	0.4	171	3.07	2.43	10.03	8.47
142	24	1/15	<b>M1125284</b>	522	PZ2-31	12	0.4	180	3.07	2.13	9.73	8.17
283	12	1/15	<b>M1125285</b>	524	PZ2-31	6	0.4	180	3.07	2.13	9.73	8.17

### PZ SERIES - AZ



### P240 SERIES - AC

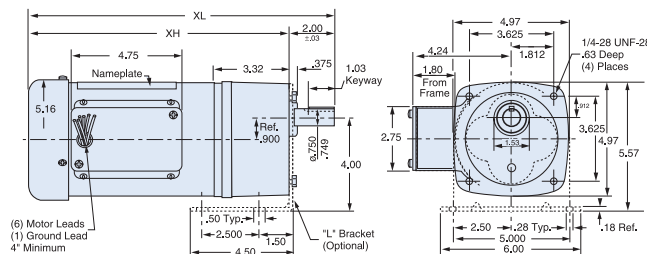


## P240 SERIES AC GEARMOTORS

### THREE PHASE • 230V • TEFC

Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	List Price▲	Gearmotor Type & Frame	Ratio to 1	F.L. Amps 230V AC	Over-hung Load (Lb.)	DIMENSIONS			
									P	X	XL	XH
16	391	1/6	<b>M1145122</b>	\$632	P243-38	103	0.72	399	4.43	3.50	11.63	10.13
30	295	1/6	<b>M1145123</b>	621	P243-38	58	0.72	330	4.43	3.50	11.63	10.13
60	157	1/6	<b>M1145124</b>	580	P242-38	29	0.72	268	4.43	3.50	11.63	10.13
90	103	1/6	<b>M1145125</b>	587	P242-38	19	0.72	330	4.43	3.50	11.63	10.13
156	60	1/6	<b>M1145126</b>	581	P242-38	10.6	0.72	330	4.43	3.50	11.63	10.13

### PE350 THREE PHASE

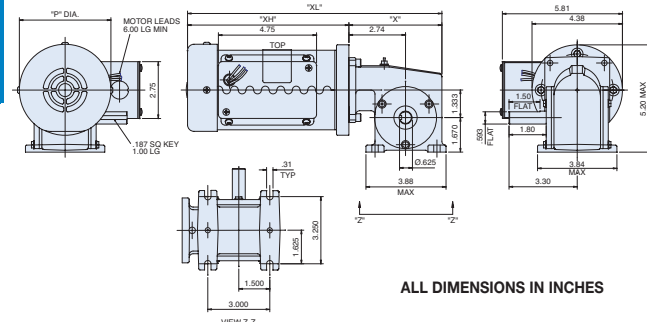


## PE350 SERIES AC GEARMOTORS

### THREE PHASE • 230/460V • TEFC

Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	List Price▲	Gearmotor Type & Frame	Ratio to 1	F.L. Amps 230V AC	Over-hung Load (Lb.)	DIMENSIONS			
									P	X	XL	XH
9	341	1/6	<b>096065</b>	\$568	PE353-42	180	1.0	491	5.16	3.32	12.57	10.57
29	300	1/4	<b>096066</b>	566	PE353-42	58	1.2	327	5.16	3.32	13.07	11.07
58	244	1/4	<b>096067</b>	573	PE353-42	30	1.2	300	5.16	3.32	13.07	11.07
85	165	1/4	<b>096068</b>	524	PE352-42	20	1.2	300	5.16	3.32	13.07	11.07
173	92	1/4	<b>096069</b>	529	PE352-42	10	1.2	300	5.16	3.32	13.07	11.07
345	50	1/4	<b>096070</b>	531	PE352-42	5	1.2	300	5.16	3.32	13.07	11.07

### 13 SERIES - AC



## RIGHT ANGLE SERIES AC GEARMOTORS

### THREE PHASE • 230V • TEFC

Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	List Price▲	Gearmotor Type & Frame	Ratio to 1	F.L. Amps 230V AC	Over-hung Load (Lb.)	DIMENSIONS			
									P	X	XL	XH
29	238	3/8	<b>M1145127</b>	\$648	13F60-38	60	1.3	235	4.43	4.50	12.31	7.81
43	228	3/8	<b>M1145128</b>	645	13F40-38	40	1.3	235	4.43	4.50	12.31	7.81
86	138	3/8	<b>M1145129</b>	647	13F20-38	20	1.3	235	4.43	4.50	12.31	7.81
172	105	3/8	<b>M1145130</b>	645	13F10-38	10	1.3	235	4.43	4.50	12.31	7.81
345	54	3/8	<b>M1145131</b>	653	13F05-38	5	1.3	235	4.43	4.50	12.31	7.81

▲ Use "A" discount symbol.

Catalog numbers in blue are NEW items.

**Design Specifications:**

Three phase motors totally enclosed for continuous duty, general purpose applications.

Standard on all these ratings is the exclusive Inverter Rated Insulation System (IRIS). This provides superior protection against voltage spikes induced by variable frequency drives.

Many superior mechanical features double shielded ball bearings, welded-on base, steel conduit box provided as standard, furnished with high gloss hardened black enamel paint.

**Application Notes:**

These motors are designed with high temp insulation (Class F) to avoid overheating when operated with a PWM inverter down to a 10:1 speed range from the motor's base speed.

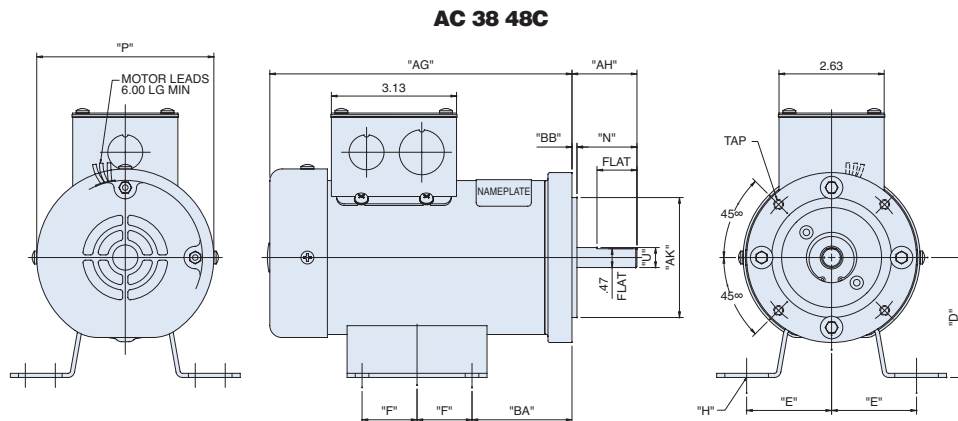
**230 VOLT • THREE PHASE**  
**1.0 SERVICE FACTOR • TOTALLY ENCLOSED**

HP	RPM 60 Hz	Frame	Catalog Number	List Price	Disc. Sym.	Voltage	F.L. Amps 230V
1/15	1725	38	<b>M1140171*</b>	\$385	S	230	.4
1/6	1725	38	<b>M1140173*</b>	425	S	230	.72
1/4	1725	38	<b>M1140172</b>	446	S	230	1.1

\* TENV enclosure

**38 FRAME NEMA C-FACE WITH BASE DIMENSIONS**

Catalog Number	AG	P	U	AH	BB	AJ	TAP	R	AK	BB	D	BA	E	F	H
M1140171	5.14	3.85	.5000	1.63	1.00	3.75	1/4-20	4.25	3.00	.13	3.0	2.50	2.125	1.375	11/32 Slot
M1140173	6.14	3.85	.5000	1.63	1.00	3.75	1/4-20	4.25	3.00	.13	3.0	2.50	2.125	1.375	11/32 Slot
M1140172	7.56	4.43	.5000	1.63	1.00	3.75	1/4-20	4.25	3.00	.13	3.0	2.50	2.125	1.375	11/32 Slot



ALL DIMENSIONS IN INCHES

**Both motors only and gearmotors will have inverter rated printed on the nameplate.**  
**UL and CSA recognition for both motors only and gearmotors**



**LEESON'S Inverter Rated Insulation System (IRIS™)** provides superior protection against voltage spikes induced by variable frequency drives. This *total insulation system* protects better than spike-resistant magnet wire alone. Sleeved connections (from the leads all the way

into the turns), and deep-penetrating, non-hygroscopic, high temperature varnish are just a few features contributing to extra protection. All this plus second generation spike-resistant magnet wire. The IRIS™ *total insulation system* is standard at no extra cost.

**Catalog numbers in blue are NEW items.**