



SUB-FHP DC GEARMOTORS

PARALLEL SHAFT GEARMOTORS

**SCR RATED:
10-100 In-Lbs Torque**

**LOW VOLTAGE:
36-100 In-Lbs Torque**

Electrical Specifications:

SCR Rated Gearmotors

Totally enclosed, permanent magnet DC gearmotors, performance matched for continuous duty service over a 60:1 speed range. All have constant torque throughout the range when powered by a full-wave unfiltered SCR-type adjustable speed control having a typical form factor of 1.3 to 1.4.



Low Voltage Gearmotors

Totally enclosed, permanent magnet DC gearmotors, performance matched for continuous duty. Motors are designed for battery power or can be used with a low voltage controller with form factor up to 1.05.

Mechanical Specifications:

Precision machined in-line steel gears, with a first stage steel helical gear followed by spur-type gears. Lubrication is permanent semi-fluid grease, reducing possibility of leakage. Output shafts have needle bearings for high load capacities. Shafts are hardened steel.

Conduit box **not** included with motor. Optional conduit box and PZ gearmotor mounting bracket shown on page 179.

Application Notes:

These gearmotors are designed for mounting at any angle, but motor below the reducer should be avoided to prevent leakage of lubricant into the motor should the motor shaft seal fail.

The motor's stall torque could exceed recommended full load torques. If this service is anticipated, a current limiting device should be used. This issue is even more critical for low voltage motors, typically no controller is used since motor connected directly to battery, so some type of current limit or fusing should be considered.

Overhung load capacities shown are at center of output shaft.

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

For additional information, see Bulletin 1830.

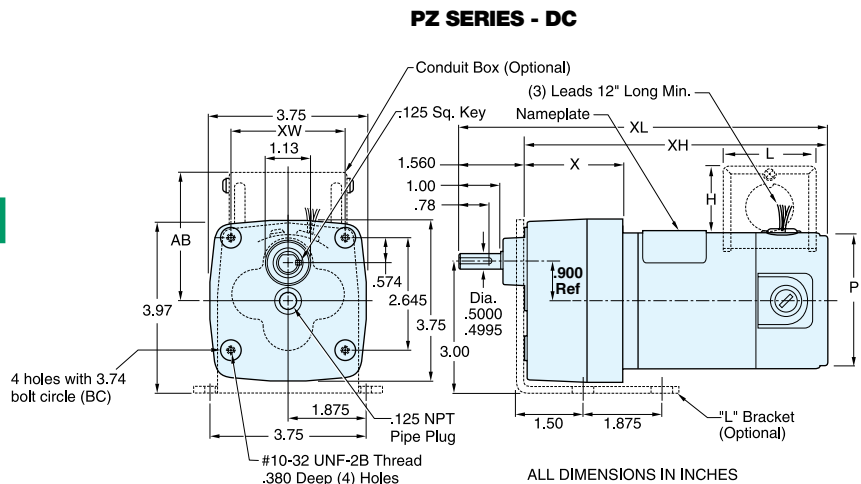
**BODINE/BISON/DAYTON
DIRECT INTERCHANGE**

PZ SERIES DC • SCR RATED PARALLEL SHAFT • TENV • 1.0 SERVICE FACTOR

Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	Gearmotor Type & Frame	Ratio to 1	Arm. Volts DC	F.L. Amps DC	Over-hung Load (Lb.)	DIMENSIONS			
									P	X	XL	XH
4	40	1/40	M1115002.00	PZ5-30A	450	90	0.46	155	3.00	3.25	9.28	7.72
4	40	1/40	M1125046.00	PZ5-30A	450	180	0.19	155	3.00	3.25	9.30	7.74
10	100	1/20	M1115001.00	PZ4-30E	180	90	0.54	155	3.00	3.25	9.28	7.72
10	100	1/20	M1125047.00	PZ4-30A	180	180	0.31	155	3.00	3.25	9.30	7.74
20	100	1/20	M1115000.00	PZ4-30E	90	90	0.54	155	3.00	3.25	9.28	7.72
20	100	1/20	M1125048.00	PZ4-30A	90	180	0.31	155	3.00	3.25	9.30	7.74
30	100	1/17	M1125002.00	PZ3-30B	60	90	0.80	155	3.00	2.68	8.74	7.18
30	100	1/17	M1125037.00	PZ3-30B	60	180	0.36	155	3.00	2.68	8.74	7.18
60	56	1/17	M1125003.00	PZ3-30B	30	90	0.80	171	3.00	2.68	8.74	7.18
60	56	1/17	M1125036.00	PZ3-30B	30	180	0.36	171	3.00	2.68	8.74	7.18
100	36	1/17	M1125004.00	PZ3-30B	18	90	0.80	171	3.00	2.68	8.74	7.18
100	36	1/17	M1125035.00	PZ3-30B	18	180	0.36	171	3.00	2.68	8.74	7.18
150	24	1/17	M1125005.00	PZ2-30B	12	90	0.80	180	3.00	2.40	8.46	6.90
150	24	1/17	M1125034.00	PZ2-30B	12	180	0.36	180	3.00	2.40	8.46	6.90
300	10	1/17	M1125006.00	PZ2-30B	6	90	0.80	180	3.00	2.40	8.46	6.90
300	10	1/17	M1125033.00	PZ2-30B	6	180	0.36	180	3.00	2.40	8.46	6.90

PZ SERIES DC • LOW VOLTAGE (12V) PARALLEL SHAFT • TENV • 1.0 SERVICE FACTOR

Output RPM	F.L. Torque (Lb.In.)	Input HP	Catalog Number	Gearmotor Type & Frame	Ratio to 1	Arm. Volts DC	F.L. Amps DC	Over-hung Load (Lb.)	DIMENSIONS			
									P	X	XL	XH
10	100	1/20	M1125213.00	PZ4-30	180	12	2.7	155	3.00	3.25	9.28	7.72
30	100	1/17	M1125214.00	PZ3-30	60	12	5.2	155	3.00	2.68	8.74	7.18
55	56	1/17	M1125215.00	PZ3-30	30	12	5.6	171	3.00	2.68	8.74	7.18



QUICK REFERENCE

GEARMOTOR CROSS REFERENCE	Page 254
"L" BRACKET AND CONDUIT BOX	179
SPEEDMASTER® CONTROLS	210

CONDUIT BOX DIMENSIONS (IN.)

FRAME	XW	AB	H	L
30/31	2.63	3.47	1.90	3.13