

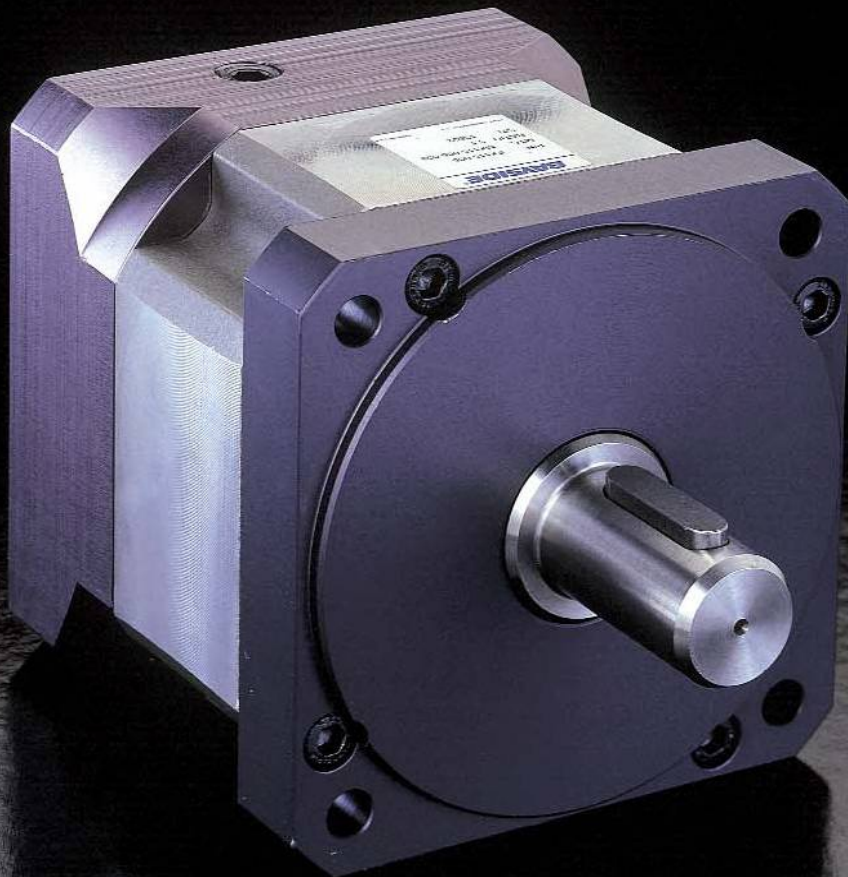


► **Stealth® PX Series:**
Best Technology .. Best Value

Stealth® PX incorporates Bayside's helical planetary technology in a lower cost package. Available in NEMA and Metric frame sizes, Stealth® PX delivers high torque and quiet, smooth operation for less demanding servo applications.

3 Frame Sizes		
PX60	PX23	
PX90	PX34	
PX115	PX42	

Ratios		
3:1	10:1	30:1
4:1	15:1	50:1
5:1	20:1	70:1
7:1	25:1	100:1



Stealth® PX Series



Performance Specifications

	Units	Ratio	Frame Size			
			PX60/PX23	PX90/PX34	PX115/PX42	PX142/56
Nominal Output Torque, $T_{nom r}$	Nm	3-5	18	45	124	226
	in lb		160	400	1,100	1,994
	Nm	7-15	22	57	147	231
	in lb		190	500	1,300	2,038
	Nm	20-50	28	74	181	278
	in lb		250	650	1,600	2,453
Max. Acceleration Output Torque, $T_{acc r}$	Nm	3-15, 70-100	26	71	175	282
	in lb		230	630	1,550	2,488
	Nm	20-50	32	86	215	347
	in lb		280	760	1,900	3,062
	Nm	70-100	23	57	158	261
	in lb		200	500	1,400	2,038
Emergency ⁽¹⁾ Stop Output Torque, $T_{em r}$	Nm	3-15, 70-100	60	164	407	656
	in lb		530	1,450	3,600	5,789
	Nm	20-50	74	198	497	800
	in lb		650	1,750	4,400	7,055
	Nm	70-100	23	57	158	261
	in lb		200	500	1,400	2,038
Nominal Input Speed, $N_{nom r}$	RPM	3-5	3,200	2,800	2,400	2,000
	RPM	7-15	3,700	3,300	2,900	2,500
	RPM	20-50	4,200	3,800	3,400	3,000
	RPM	70-100	4,700	4,300	3,900	3,500
Maximum Input Speed, $N_{max r}$	RPM	3-100	6,000	5,300	4,500	3,800
Standard Backlash ⁽²⁾	arc min	3-10	14	14	12	12
	arc min	15-100	16	16	14	14
Low Backlash ⁽²⁾	arc min	3-10	10	10	8	8
	arc min	15-100	12	12	10	10
Efficiency at Nominal Torque	%	3-10	96	96	96	96
	%	15-100	93	93	93	93
Noise Level ⁽³⁾ at: 3,000 RPM	dB	3-100	70	70	70	70
Torsional Stiffness	Nm / arc min	3-100	3	10	20	39
	in lb / arc min		22	88	177	345
Maximum Weight	kg	3-10	1	3	7	14
	lb		3	7	15	30
	kg	15-100	2	5	10	20
	lb		4	10	21	43
Max. Allowable Case Temperature	°C	3-100	← 100 →			

Specifications:	Units	Ratio	Frame Size			
			PX60/PX23	PX90/PX34	PX115/PX42	PX142/56
Moment of Inertia ⁽⁴⁾	gm cm sec ²	3	0.212	0.918	2.53	8.826
	oz in sec ²		0.003	0.013	0.035	0.124
	gm cm sec ²	4,5	0.134	0.590	1.92	4.514
	oz in sec ²		0.002	0.008	0.027	0.063
	gm cm sec ²	7,10	0.092	0.372	1.12	3.326
	oz in sec ²		0.001	0.005	0.016	0.047
	gm cm sec ²	15	0.122	0.524	1.64	4.849
	oz in sec ²		0.002	0.007	0.023	0.068
	gm cm sec ²	20,25	0.128	0.548	1.78	5.179
	oz in sec ²		0.002	0.008	0.025	0.073
	gm cm sec ²	30-100	0.083	0.322	0.924	2.840
	oz in sec ²		0.001	0.004	0.013	0.040

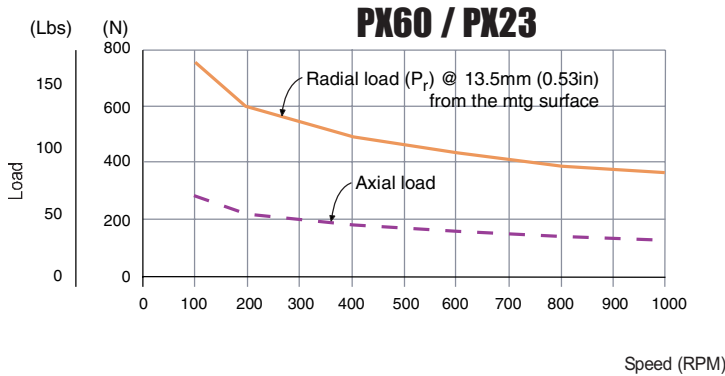
(1) Maximum of 1,000 stops
(2) Measured at 2% of rated torque.

(3) Measured at 1 meter
Specification are subject to change without notice

(4) All Moment of Inertia values are as reflected at the input shaft of the gearhead.



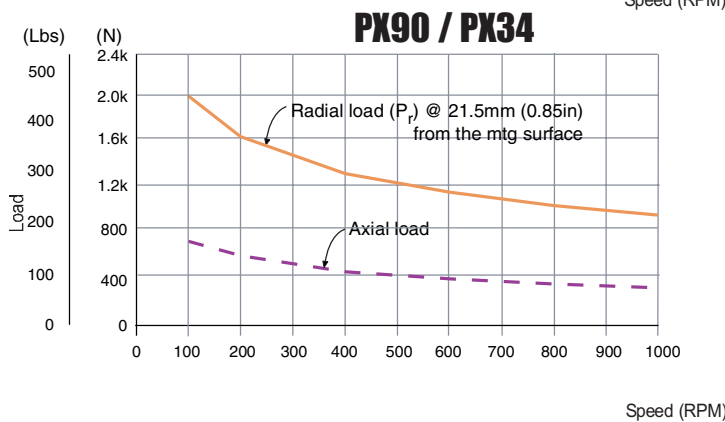
Stealth® PX Series: Output Shaft Load Rating



Formulas to calculate Radial Load (P_{rx}) at any distance "X" from the gearhead mounting surface.

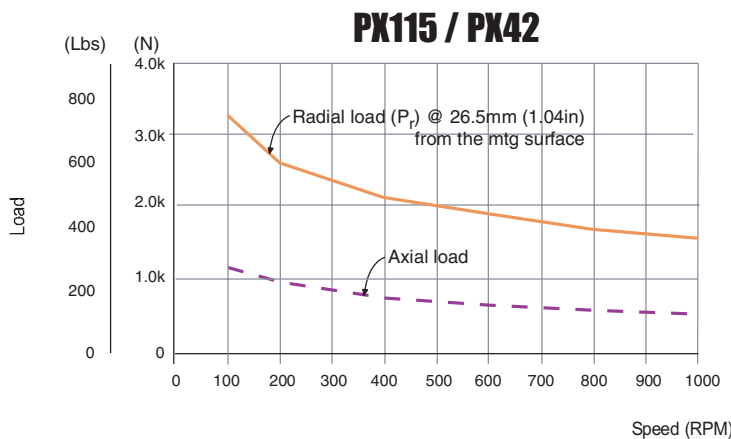
$$P_{rx} = (P_r)(54\text{mm}) / (41\text{mm} + X)$$

$$P_{rx} = (P_r)(2.13\text{in}) / (1.61\text{in} + X)$$



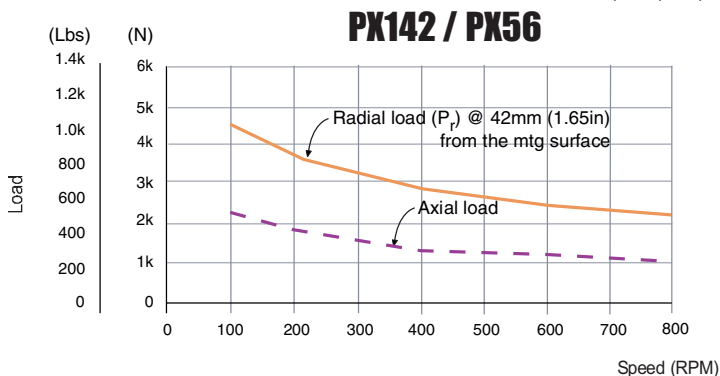
$$P_{rx} = (P_r)(73\text{mm}) / (52\text{mm} + X)$$

$$P_{rx} = (P_r)(2.87\text{in}) / (2.05\text{in} + X)$$



$$P_{rx} = (P_r)(89\text{mm}) / (63\text{mm} + X)$$

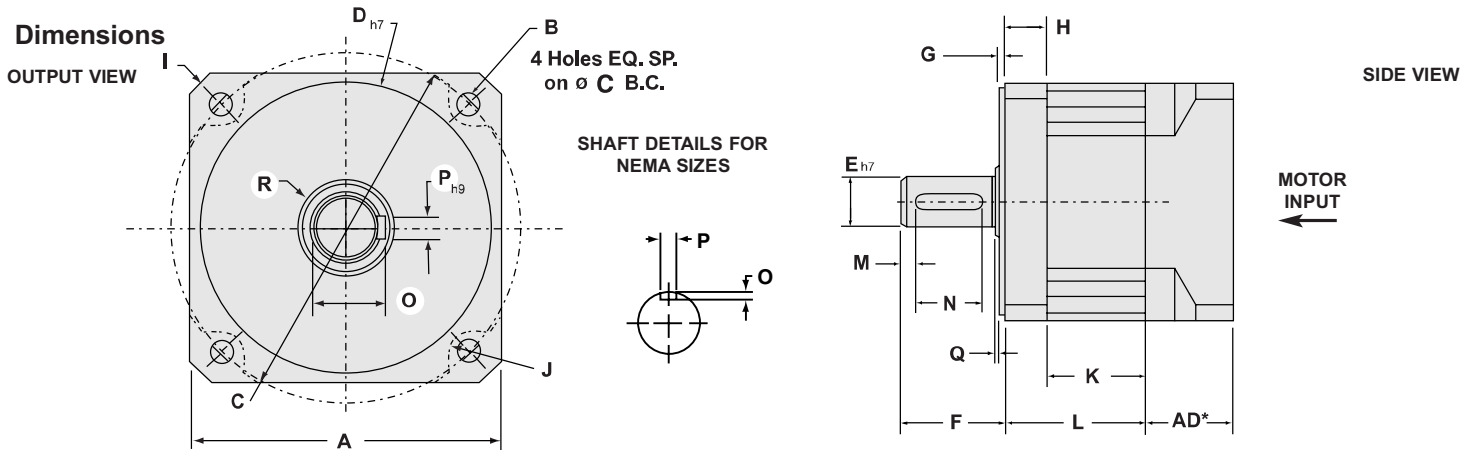
$$P_{rx} = (P_r)(3.5\text{in}) / (2.48\text{in} + X)$$



$$P_{rx} = (P_r)(121\text{mm}) / (65\text{mm} + X)$$

$$P_{rx} = (P_r)(4.76\text{in}) / (2.56\text{in} + X)$$

Stealth® PX Series



METRIC SIZES

Frame Size	A Square Flange		B Bolt Hole		C Bolt Circle		D Pilot Diameter		E Output Shaft Diameter		F Output Shaft Length		G Pilot Thickness		H Flange Thickness		I Housing Diameter		J Housing Recess	
	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
PX60	60	2.362	5.5	0.217	70	2.756	50	1.969	16	0.630	25	0.984	2.5	0.098	13	0.512	80	3.150	5.5	0.217
PX90	90	3.543	6.5	0.256	100	3.937	80	3.150	20	0.787	40	1.575	3	0.118	17	0.669	116	4.567	6.5	0.256
PX115	115	4.528	8.5	0.335	130	5.118	110	4.331	24	0.945	50	1.969	3.5	0.138	20	0.787	152	5.984	7.5	0.295
PX142	142	5.591	11.0	0.433	165	6.496	130	5.118	40	1.575	80	3.150	3.5	0.138	25	0.984	194	7.637	10.0	0.394

Frame Size	K1 Recess Length (For Ratio ≤ 10:1)		K2 Recess Length (For Ratio > 10:1)		L1 Length (For Ratio ≤ 10:1)		L2 Length (For Ratio > 10:1)		M Dist. From Shaft End		N Keyway Length		O Key Height		P Keyway Width		Q Shoulder Height		R Shoulder Diameter	
	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)
PX60	30	1.181	60	2.362	43	1.693	73	2.874	3	0.118	16	0.630	18	0.709	5	0.197	1	0.039	22	0.866
PX90	39.5	1.555	79	3.110	56.5	2.224	96	3.780	5	0.197	28	1.102	22.5	0.886	6	0.236	1	0.039	35	1.378
PX115	47.8	1.882	95.6	3.764	67.8	2.669	115.6	4.551	7	0.276	32	1.260	27	1.063	8	0.315	1.5	0.059	35	1.378
PX142	61.5	2.421	123.0	4.843	86.5	3.406	148.0	5.827	8	0.315	63	2.480	43.0	1.693	12	0.472	1.5	0.059	46	1.811

*AD=Adapter Length. Adapter will vary, depending on motor. Consult Internet (www.baysidemotion.com) for details or call Bayside.

NEMA SIZES

Frame Size	B Bolt Hole		C Bolt Circle		D Pilot Diameter		E Output Shaft Diameter		F Output Shaft Length		N Keyway Length		O Keyway Depth		P Keyway Width	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
PX23	0.195	4.953	2.625	66.675	1.5	38.100	0.375	9.525	1	25.400	0.75 flat	19.050 flat	0.015 flat	0.381 flat	—	—
PX34	0.217	5.512	3.875	98.425	2.875	73.025	0.5	12.700	1.25	31.750	1.063	27.000	0.072	1.829	0.125	3.175
PX42	0.281	7.137	4.95	125.730	2.187	55.550	0.625	15.875	1.5	38.100	1.142	29.007	0.094	2.388	0.188	4.775
PX56	0.398	10.109	7.000	177.8	4.500	114.300	1.000	25.400	2.000	50.800	1.625	41.275	0.142	3.607	0.250	6.350

NOTE: NEMA sizes have 20% lower torque/stiffness ratings due to smaller output shaft diameter. Specifications are subject to change without notice.

How to Order

Order Numbering Example: **P X 1 1 5 - 0 1 0 - X X X L B**

FRAME SIZE	RATIO	SPECIAL	OPTIONAL
(Metric Sizes)	(NEMA Sizes)	(Factory Issued)	LOW BACKLASH
60	23	003 010 030	
90	34	004 015 050	
115	42	005 020 070	
142 (1)	56 (1)	007 025 100	

1. Pick frame size and ratio.
2. Pick options.
3. Specify motor make and model for mounting kit.

PX Gearheads are supported by a worldwide network of offices and local distributors. Call **1-800-305-4555** for application engineering assistance or for the name of your local distributor. Information can also be obtained at www.baysidemotion.com.