

Generation II Stealth® Series

PX Generation II Performance Specifications

Parameter	Units	Ratio	PX60 Gen II	PX90 Gen II	PX115 Gen II
Nominal Output Torque ¹⁾ $T_{nom r}$	Nm (in-lb)	3,15,30	20 (177)	56 (496)	120 (1062)
		4,5,7,20,25,40,50,70	32 (283)	66 (584)	152 (1345)
		10,100	25 (221)	60 (531)	160 (1416)
Maximum Acceleration Output Torque ²⁾ $T_{acc r}$	Nm (in-lb)	3,15,30	27 (240)	84 (743)	180 (1593)
		4,5,7,20,25,40,50,70	39 (345)	98 (867)	228 (2018)
		10,100	30 (265)	90 (797)	192 (1700)
Emergency Stop Output Torque ³⁾ $T_{em r}$	Nm (in-lb)	3,15,30	64 (565)	208 (1840)	480 (4248)
		4,5,7,20,25,40,50,70	56 (495)	184 (1628)	400 (3540)
		10,100	48 (425)	160 (1416)	344 (3044)
Nominal Input Speed $N_{nom r}$	RPM	3	3000	2500	2000
		4,5	3500	3000	2500
		7,10,15	4000	3500	3000
		20,25,30	4500	4000	3500
		40,50	4800	4400	3800
		70,100	5200	4800	4200
Maximum Input Speed $N_{max r}$ ⁴⁾	RPM	3 – 100	6000	5500	4500
Maximum Radial Load Pr_{max} ^{5,7)}	N (lbs)		1550 (348)	2800 (630)	5500 (1235)
Maximum Axial Load Pa_{max} ⁶⁾	N (lbs)		2100 (475)	3600 (810)	6800 (1530)
Service Life	h		20,000		
Standard Backlash ⁸⁾	arc-min	3 – 10	<10	<9	<8
		15 – 100	<12	<11	<10
Low Backlash ⁸⁾	arc-min	3 – 10	<8	<7	<6
		15 – 100	<10	<9	<8
Efficiency at Nominal Torque	%	3 – 10	97	97	97
		15 – 100	94	94	94
Noise Level at 3000 RPM ⁹⁾	db	3 – 100	<62	<62	<65
Torsional Stiffness	Nm/arc-min (in-lb/arc-min)	3 – 100	2.5 (22)	10 (90)	22 (195)
Maximum Allowable Case Temperature	° C	3 – 100	-20 to 90		
Lubrication		3 – 100	Per Maintenance Schedule		
Mounting Position		3 – 100	Any		
Direction of Rotation		3 – 100	Same as Input		
Degree of Protection			IP65		
Maximum Weight	kg (lbs)	3 – 10	1.0 (2.2)	3.0 (6.6)	7.0 (15.4)
		15 – 100	2.0 (4.4)	5.0 (11.0)	10.0 (22.0)

1) At nominal speed $N_{nom r}$.

2) Parker MotionSizer sizing software available for free download at parkermotion.com.

3) Maximum of 1000 stops.

4) For intermittent operation.

5) Max radial load applied to the center of the shaft at 100 rpm.

6) Max axial load at 100 rpm.

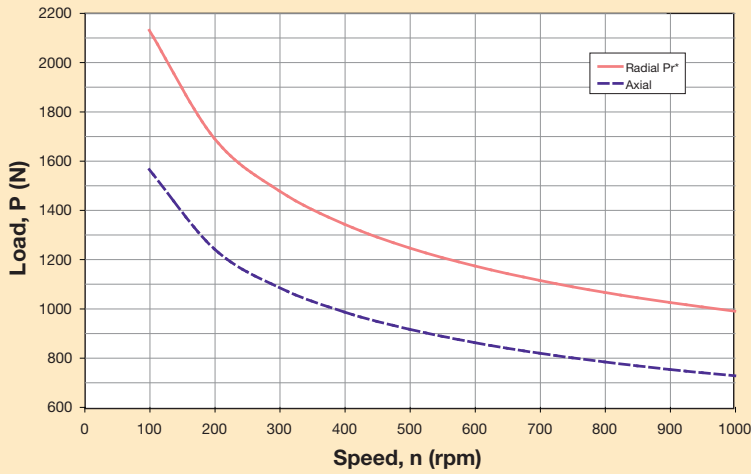
7) For combined radial and axial load consult factory.

8) Measured at 2% of rated torque.

9) Measure at 1m.

PX Generation II Output Shaft Load Rating

PX60 / PX23

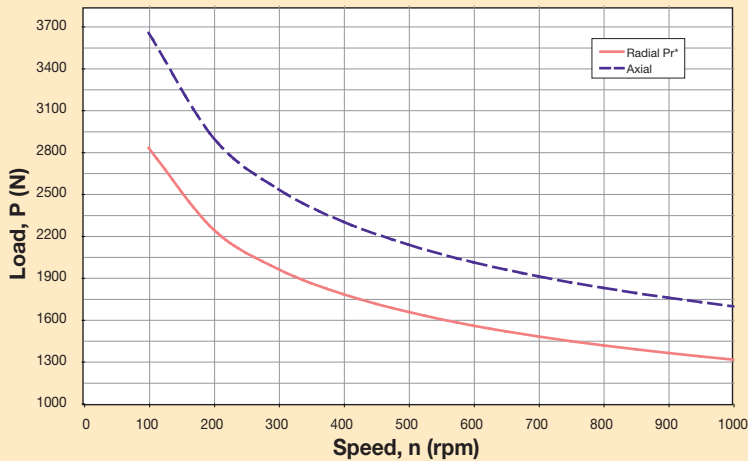


Formulas to calculate radial load (Prx) at any distance "X" from the gearhead mounting surface:

$$Prx = Pr * 78 \text{ mm} / (63 + X)$$

$$Prx = Pr * 3.07 \text{ in} / (2.48 \text{ in} + X)$$

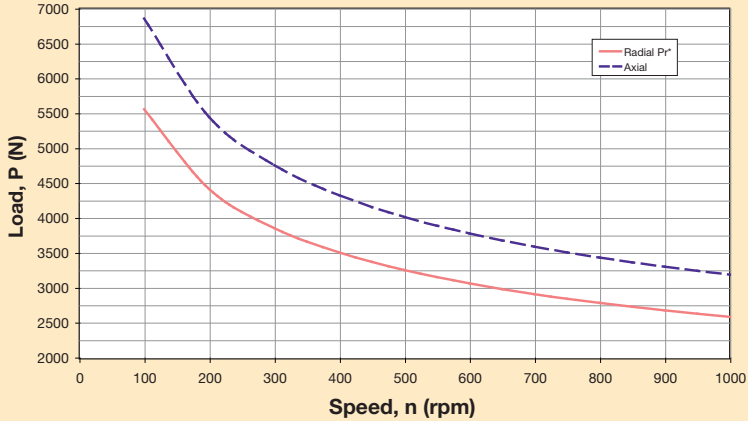
PX90 / PX34



$$Prx = Pr * 95 \text{ mm} / (73 + X)$$

$$Prx = Pr * 3.74 \text{ in} / (2.87 \text{ in} + X)$$

PX115 / PX42



$$Prx = Pr * 115 \text{ mm} / (73 + X)$$

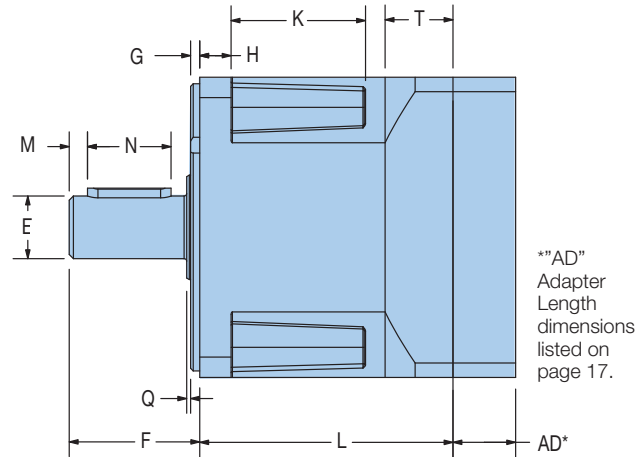
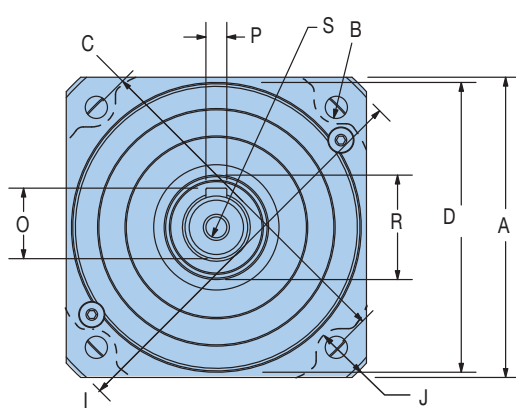
$$Prx = Pr * 4.53 \text{ in} / (3.43 \text{ in} + X)$$

* Radial load applied to center of the shaft.

Generation II Stealth® Series

PX Generation II Dimensions

Free 3D Solid Models and drawings available at parkermotion.com



Metric Frame Sizes

Frame Size	A		B		C		D		E		F		G		H		I		J		K	
	Square Flange		Flange Bolt Hole		Flange Bolt Circle		Pilot Diameter		Output Shaft Diameter		Output Shaft Length		Pilot Thickness		Flange Thickness		Housing Diameter		Housing Recess		Recess Length	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
PX60	62	2.441	5.5	0.217	70	2.756	50	1.969	16	0.630	25	0.984	2.5	0.098	8	0.315	82	3.228	5	0.197	35	1.38
PX90	90	3.543	6.5	0.256	100	3.937	80	3.150	20	0.787	40	1.575	3	0.118	10	0.394	116	4.567	6.5	0.256	43	1.69
PX115	115	4.528	8.5	0.335	130	5.118	110	4.331	24	0.945	50	1.969	3.5	0.138	12	0.472	152	5.984	7.5	0.295	51	2.0

Frame Size	L1		L2		M		N		O		P		Q		R		S		T	
	Length Single Stage		Length Double Stage		Distance from Shaft End		Keyway Length		Key Height		Keyway Width		Shoulder Height		Shoulder Diameter		Tap & Depth (end of shaft)		Rear Housing Thickness	
	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in
PX60	70.3	2.77	105.3	4.15	3	0.118	16	0.630	18	0.709	5	0.197	1	0.039	21	0.827	M5x8	20.3	0.799	
PX90	80	3.15	123.5	4.87	5	0.197	28	1.102	22.5	0.886	6	0.236	1	0.039	29	1.142	M8x16	20	0.787	
PX115	97	3.82	150.2	5.92	7	0.276	32	1.260	27	1.063	8	0.315	1.5	0.059	36	1.417	M8x16	26	1.024	

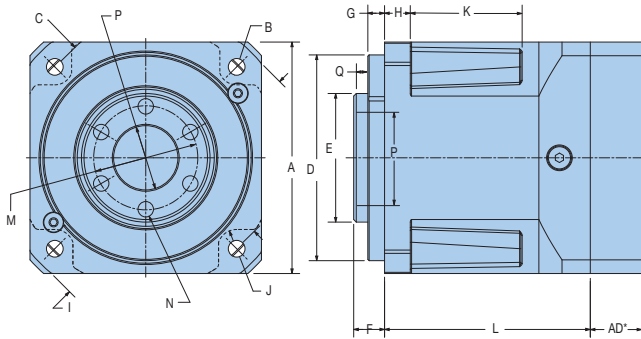
NEMA Frame Sizes

Frame Size	B		C		D		E		F		N		O		P	
	Bolt Hole		Bolt Circle		Pilot Diameter		Output Shaft Diameter		Output Shaft Length		Keyway Length		Keyway Depth		Keyway Width	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
PX23	0.2	4.953	2.625	66.675	1.5	38.100	0.38	9.525	1	25.400	—	—	—	—	—	—
PX34	0.22	5.512	3.88	98.425	2.88	73.025	0.5	12.700	1.25	31.750	1.06	27.000	0.07	1.829	0.13	3.251
PX42	0.28	7.137	4.95	125.730	2.19	55.550	0.63	15.875	1.5	38.100	1.14	29.007	0.09	2.388	0.19	4.775

PX23 has a flat on output shaft, not a keyway

NOTE: NEMA Sizes have 20% lower torque/stiffness ratings due to smaller output shaft diameter.

PX Flange Mount Option Dimensions



Dimensions A through D and H through L2 are the same as the metric frame dimensions shown on the previous page 18.

Frame Size	E		F		G	
	Output Hollow Shaft Diameter		Output Hollow Shaft Depth		Pilot Thickness	
	mm	in	mm	in	mm	in
PX60-T01	32	1.26	7.5	0.30	2.5	0.10
PX90-T01	50	1.97	12	0.47	6.5	0.26
PX115-T01	70	2.76	14.5	0.57	8.5	0.33

PX Generation II Universal Mounting Kits*

Adapter Length "AD" Dimension

Frame Size	Motor Shaft Length		Gearhead Adapter Length	
	mm	in	mm	in
60	16 – 35	0.630 – 1.378	16.5	0.65
	35.1 – 41	1.382 – 1.614	22.5	0.886
90	20 – 40	0.787 – 1.575	20	0.787
	40.1 – 48	1.579 – 1.890	28.5	1.122
115	22 – 50	0.866 – 1.969	24	0.945
	50.1 – 61	1.972 – 2.402	35	1.378

Frame Size	M		N		P		Q	
	Shaft Bolt Circle		Tap Size		Shaft Pilot Diameter		Shaft Pilot Depth	
	mm	in			mm	in	mm	in
PX60-T01	25	0.984	M5 x 0.8		18	0.709	4	0.157
PX90-T01	40	1.575	M6 x 1		25	0.984	5	0.197
PX115-T01	55	2.165	M8 x 1.25		40	1.575	5.5	0.217

* Know your motor and need our mounting kit part number? See page 29 or use our Motor Mounting Search Tool on our website at: www.parkermotion.com

PX Generation II Inertia

All moment of inertia values are as reflected at the input of the gearhead

Ratio	Units*	PX60 / PX23	PX90 / PX34	PX115 / PX42
3	kg-cm ²	0.2500	0.9700	3.4000
	in-lb-sec ²	0.000221	0.000858	0.003009
4	kg-cm ²	0.1700	0.6700	2.2000
	in-lb-sec ²	0.000150	0.000593	0.001947
5	kg-cm ²	0.1500	0.5100	1.7000
	in-lb-sec ²	0.000133	0.000451	0.001505
7	kg-cm ²	0.1400	0.4100	1.3000
	in-lb-sec ²	0.000124	0.000363	0.001151
10	kg-cm ²	0.1400	0.3700	1.1000
	in-lb-sec ²	0.000124	0.000327	0.000974
15	kg-cm ²	0.1500	0.5200	1.7000
	in-lb-sec ²	0.150000	0.000460	0.000150
20	kg-cm ²	0.1500	0.5100	1.7000
	in-lb-sec ²	0.000133	0.000451	0.001505
25	kg-cm ²	0.1500	0.5100	1.7000
	in-lb-sec ²	0.000133	0.000451	0.001505
30, 40, 50, 70, 100	kg-cm ²	0.1300	0.3700	1.1000
	in-lb-sec ²	0.000115	0.000327	0.000974

* Note: 1 kg-cm² = 0.000885 in-lb-sec²