



# PLS / PLV

## High Precision Planetary Servo Gearhead

Radial and Axial Shaft-Loads, Input Speeds, Noise Level, Inertias



Output Shaft Radial and Axial Loads • Input Speeds • Noise Level •						
		PLS 70 PLV70	PLS 90 PLV 90	PLS 115 PLV 115	PLS 142 PLV 142	PLS 190
Output Shaft Radial Load <sup>(1) (2)</sup> ( at 20000 hrs L10 and 100 output shaft rpm )	<i>N (lb)</i>	3300 (742) 2800 (629)	4300 (967)	4800 (1079)	9000 (2023)	13300 (2990)
Output Shaft Axial Load <sup>(2)</sup> ( at 20000 hrs L10 and 100 output shaft rpm )	<i>N (lb)</i>	4700 (1057)	6400 (1439)	8000 (1798)	15000 (3372)	21000 (4721)
Output Shaft Radial Load <sup>(1) (2)</sup> ( at 30000 hrs L10 and 100 output shaft rpm )	<i>N (lb)</i>	3000 (674) 2800 (629)	3900 (877)	4300 (967)	8200 (1843)	12000 (2698)
Output Shaft Axial Load <sup>(2)</sup> ( at 30000 hrs L10 and 100 output shaft rpm )	<i>N (lb)</i>	4100 (922)	5700 (1281)	7100 (1596)	13300 (2990)	18500 (4159)
Max Input Speed	<i>rpm</i>	14000	10000	8500	6500	6000
Continuous / Average Input Speed	<i>rpm</i>	any rpm as long as the gearbox temperature does not exceed the +100 °C (212 °F)				
Noise Level <sup>(3)</sup>	<i>dBA</i>	58	60	65	68	73

(1) Radial load at shaft midpoint.  
 (2) Detailed bearing life calculation utility is available at [www.neugartusa.com](http://www.neugartusa.com) or contact **Neugart USA** with the application data  
 (3) Sound pressure level measured at 3000 rpm, no load, 1m distance from the gearbox.

Standard Motor Mount Gearhead Moment of Inertia at the high speed side (input)						<i>kgcm<sup>2</sup> (lbin.sec<sup>2</sup> 10<sup>-4</sup>)</i>
PLS 70 PLV 70	PLS 90 PLV 90	PLS 115 PLV 115	PLS 142 PLV 142	PLS 190	Ratio	Stages
0.32 (2.83)	0.81 (7.17)	2.1 (18.6)	12.14 (107)	47.5 (421)	3	1
0.2 (1.77)	0.6 (5.31)	1.51 (13.4)	7.78 (68.9)	29.7 (263)	4	1
0.16 (1.42)	0.52 (4.6)	1.22 (10.8)	6.07 (53.7)	23.2 (205)	5	1
0.12 (1.06)	0.46 (4.07)	1.05 (9.29)	4.63 (41)	16.8 (149)	8	1
0.1 (0.89)	0.44 (3.89)	1 (8.85)	4.25 (37.6)	15.3 (136)	10	1
0.22 (1.95)	0.75 (6.64)	2 (17.7)	12.4 (109)	30.3 (268)	12	2
0.21 (1.86)	0.74 (6.55)	2 (17.7)	12.4 (109)	23.5 (208)	15	2
0.2 (1.77)	0.56 (4.96)	1.48 (13.1)	7.5 (66.1)	28.9 (256)	16	2
0.17 (1.5)	0.5 (4.47)	1.41 (12.5)	6.65 (58.9)	22.7 (201)	20	2
0.16 (1.42)	0.48 (4.25)	1.21 (10.7)	5.81 (51.4)	22.5 (198)	25	2
0.13 (1.15)	0.45 (3.98)	1.46 (12.9)	6.36 (56.3)	16.7 (147)	32	2
0.13 (1.15)	0.45 (3.98)	1.05 (9.3)	5.28 (46.7)	16.5 (146)	40	2
0.13 (1.15)	0.45 (3.98)	1.05 (9.3)	4.5 (39.8)	16.4 (145)	64	2
0.12 (1.06)	0.44 (3.89)	1 (8.85)	4.17 (36.9)	15.1 (133)	100	2