

# PLS - HP

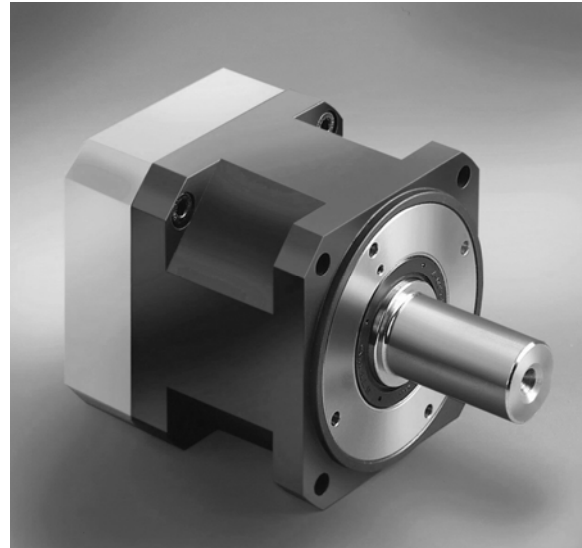
## High Performance Planetary Servo Gearhead

Torque Rating, Ratios, Inertias



### PLS-HP 70, 90, 115, 142

Highest torque density and precision servo gearhead available today. The external housing main dimensions are similar to the PLS series units, but the internal design is very different using special designed gears, enhanced bearing support, stiffer shafting etc., offering more than a 100% torque load ability increase. This gearbox line is the ultimate choice for highest precision positioning accuracy, repeatability applications. Integrated NIEC (expansion chamber) facilitates high input speeds. Backlash < 1 min is also available as an option.



Nominal-Rated Torque <sup>(1)</sup>		Torque permissible 30000 output shaft rotations <sup>(2)</sup>		Nm (lbin)	
PLS-HP 70	PLS-HP 90	PLS-P 115	PLS-HP 142	Ratio	Stage <sup>(3)</sup>
110 (973) ◊ 176 (1558)	220 (1974) ◊ 352 (3115)	520 (4602) ◊ 832 (7363)	1000 (8850) ◊ 1600 (14160)	4	1
110 (973) ◊ 176 (1558)	220 (1974) ◊ 352 (3115)	520 (4602) ◊ 832 (7363)	1000 (8850) ◊ 1600 (14160)	5	1
60 (531) ◊ 96 (850)	110 (976) ◊ 176 (1558)	250 (2212) ◊ 400 (3540)	305 (2699) ◊ 488 (7080)	10	1
110 (973) ◊ 176 (1558)	220 (1974) ◊ 352 (3115)	520 (4602) ◊ 832 (7363)	1000 (8850) ◊ 1600 (14160)	16	2
110 (973) ◊ 176 (1558)	220 (1974) ◊ 352 (3115)	520 (4602) ◊ 832 (7363)	1000 (8850) ◊ 1600 (14160)	20	2
110 (973) ◊ 176 (1558)	220 (1974) ◊ 352 (3115)	520 (4602) ◊ 832 (7363)	1000 (8850) ◊ 1600 (14160)	25	2
110 (973) ◊ 176 (1558)	220 (1974) ◊ 352 (3115)	520 (4602) ◊ 832 (7363)	1000 (8850) ◊ 1600 (14160)	32	2
110 (973) ◊ 176 (1558)	220 (1974) ◊ 352 (3115)	520 (4602) ◊ 832 (7363)	1000 (8850) ◊ 1600 (14160)	40	2
60 (531) ◊ 96 (850)	110 (976) ◊ 176 (1558)	250 (2212) ◊ 400 (3540)	500 (4425) ◊ 800 (7080)	64	2

(1) Continuous duty rated torque, at uniform load, 30000 hrs L10 design life, at 100 rpm output shaft speed

(2) Maximum torque allowable for 30000 output shaft rotations

(3) Number of planetary reduction stages.

Standard Motor Mount Gearhead Moment of Inertia (at the input)				kgcm <sup>2</sup> (lbin.sec <sup>2</sup> 10 <sup>-4</sup> )	
PLS-HP 70	PLS-HP 90	PLS-HP 115	PLS-HP 142	Ratio	Stages
0.42 (3.72)	1.05 (9.29)	2.3 (20.4)	7.8 (69.0)	4	1
0.37 (3.27)	0.85 (7.52)	1.8 (15.9)	6.2 (53.3)	5	1
0.32 (2.83)	0.75 (6.64)	1.3 (11.5)	4.5 (40.5)	8	1
0.35 (3.10)	0.85 (7.52)	1.3 (11.5)	4.5 (40.5)	16	2
0.32 (2.38)	0.85 (7.52)	1.1 (9.7)	3.8 (33.6)	20	2
0.32 (2.38)	0.85 (7.52)	1.1 (9.7)	3.8 (33.6)	25	2
0.30 (2.65)	0.75 (6.64)	0.9 (8.0)	3.2 (28.2)	32	2
0.30 (2.65)	0.75 (6.64)	0.9 (8.0)	3.2 (28.2)	40	2
0.30 (2.65)	0.70 (6.20)	0.8 (7.1)	3.1 (27.4)	64	2