



# PLF-HP

## High Performance Planetary Servo Gearhead With Rotating Output Flange



Technical Data

**Design Life • Emergency Peak Torque • IP Class • Efficiency • Backlash • Torsional Stiffness • Gearhead Weight • Recommended Maximum Unsupported Motor Weight • Operating Temperatures • Lubrication • Mounting Positions •**

		PLF-HP 64	PLF-HP 90	PLF-HP 110	PLF-HP 140
Design Life ( L10 Life)		20000 hrs			
Emergency Stop Peak Torque		200% of the continuous duty rated torque. The gearbox will withstand this torque only a very limited time (about 500 to 1000 times during the life of the gearbox) . <b>-Torques at this magnitude should not be part of the standard operating cycle!</b>			
IP Protection Class		IP 65			
Full Load efficiency	1 stage	98 %			
%	2 stage	95 %			
Rotational Backlash <sup>(1)</sup>	1 stage	< 3	< 3	< 3	< 3
(arc.min)	2 stage	< 5	< 5	< 5	< 5
Torsional (Rotational) Stiffness <sup>(2)</sup>	1 stage	22 (195)	40 (354)	110 (974)	200 (1770)
Nm/arc.min ( lbin /arc.min)	2 stage	15 (133)	30 (266)	80 (212)	180 (1593)
Gearhead Weight	1 stage	2.6 (5.6)	4.0 (8.9)	7.5 (17)	16 (35)
kg (lb)	2 stage	3.2 (7.0)	5.0 (11)	10 (22)	20 (44)
Max. Unsupported Motor Weight <sup>(3)</sup>	kg (lb)	15 (33)	20 (44)	40 (88)	60 (132)
Operating Temperature <sup>(4)</sup>	Minimum	-25 (-13)			
°C (°F)	Maximum	+110 (232)			
Lubrication		Lubricated for life with semi fluid synthetic grease "Klubersynth GE 46-1200" (Kluber Lubrication LP, - www.kluber.com)			
Mounting Positions		Any mounting position permissible without change of lubrication			

- (1) Maximum value of the rotational backlash measured at the output in arc minutes (1 arc min = 1 angular min).  
 (2) Measured at the output shaft  
 (3) For horizontal mounting position (support recommended if motor weight exceeds the given value)  
 (4) Measured at the middle of the gearbox main body

**Output Shaft Radial and Axial Loads • Input Speeds • Noise Level •**

		PLS-HP 64	PLS-HP 90	PLS-HP 110	PLS-HP 140
Output Shaft Radial Load <sup>(1)</sup>	N (lb)	1300 (293)	3400 (765)	3800 (855)	11000 (2475)
( at 20000 hrs L10 and 100 output shaft rpm )					
Output Shaft Axial Load	N (lb)	1200 (270)	3300 (743)	3600 (810)	8500 (1913)
( at 20000 hrs L10 and 100 output shaft rpm )					
Output Shaft Radial Load <sup>(1)</sup>	N (lb)	1100 (247)	3000 (674)	3300 (743)	9600 (2158)
( at 30000 hrs L10 and 100 output shaft rpm )					
Output Shaft Axial load	N (lb)	1200 (270)	3300 (743)	3600 (810)	8500 (1913)
( at 30000 hrs L10 and 100 output shaft rpm )					
Max input speed	rpm	16000	12000	10000	8000
Continuous / average input speed	rpm	any rpm as long as the gearbox temperature does not exceed the +110 °C (232 °F)			
Noise level <sup>measured 1 m from the gearbox at no load 3000 rpm</sup>	dB(A)	65	65	68	70