



PLS / PLV

High Precision Planetary Servo Gearhead

Design life, Emergency Stop (Peak) Torque, IP class
Efficiency, Backlash, Stiffness, Gearhead Weight, Max Unsupported
Motor Weight, OP-temperature, Lubricant, Mounting Positions



| Design Life • Emergency Peak Torque • IP Class • Efficiency • Backlash • | | | | | | |
|--|---------|---|------------------|--------------------|--------------------|---------|
| | | PLS 70 PLV 70 | PLS 90 PLV 90 | PLS 115 PLV 115 | PLS 142 PLV 142 | PLS 190 |
| Design Life (L10 Life) | hrs | 20000 hrs (30000 hrs @ 88% T _N) | | | | |
| 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) . -Torques at this magnitude should not be part of the standard operating cycle! | | | | |
| IP Protection Class | | IP 65 | | | | |
| Full Load Efficiency % | 1 stage | 98 % | | | | |
| | 2 stage | 95 % | | | | |
| Rotational Backlash ⁽¹⁾ (arc.min) | 1 stage | < 3 | < 3 | < 3 | < 3 | < 3 |
| | 2 stage | < 5 | < 5 | < 5 | < 5 | < 5 |
| (1) Maximum value of the rotational backlash measured at the output in arc minutes (1 arc min = 1 angular min). Average backlash is approximately 25% smaller than the listed worst case value. | | | | | | |

| Torsional (Rotational) Stiffness • Gearhead Weight • Recommended Maximum Unsupported Motor Weight • Operating Temperatures • Lubrication • Mounting Positions • | | | | | | |
|---|---------|--|------------------------|---------------------------|----------------------------|-------------|
| | | PLS 70 PLV 70 | PLS 90 PLV 90 | PLS 115 PLV 115 | PLS 142 PLV 142 | PLS 190 |
| Torsional (Rotational) Stiffness ⁽¹⁾ Nm/arc.min (lbin /arc.min) | 1 stage | 6 (53) | 9 (80) | 20 (177) | 44 (390) | 130 (1150) |
| | 2 stage | 7 (62) | 10 (88) | 22 (195) | 46 (411) | 140 (1240) |
| Gearhead Weight kg (lb) | 1 stage | 3 (6.6) 3.2 (7) | 4.3 (9.5) 3.6 (7.9) | 9 (19.8) 7.5 (16.5) | 15.4 (33.9) 14.5 (32) | 33.5 (73.5) |
| | 2 stage | 3.8 (8.4) 4 (8.8) | 5.7 (12.6) 5 (11) | 11.6 (6.8) 10.5 (23.2) | 18.5 (40.8) 17.5 (38.5) | 45 (99.2) |
| Max. Unsupported Motor Weight ⁽²⁾ | kg (lb) | 10 (22.5) | 15 (33) | 34 (75) | 50 (110) | 75 (165) |
| Operating Temperature ⁽³⁾ °C (°F) | Minimum | -25 (-13) | | | | |
| | Maximum | +100 (212) | | | | |
| 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 | | | | |
| (1) Measured at the output shaft (2) For horizontal mounting position (support recommended if motor weight exceeds the given value) (3) Measured at the middle of the gearbox main body | | | | | | |