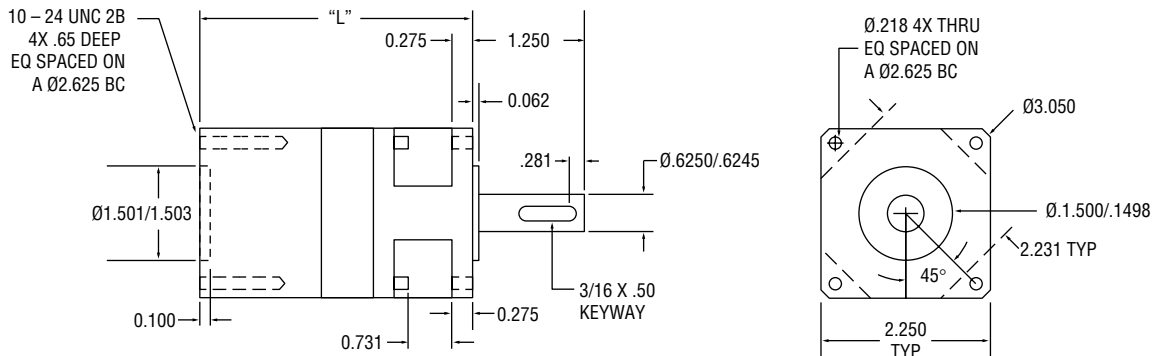




# SIZE 23

## "P" SERIES PLANETARY GEARHEAD

Single Stage "L" 3.146 ± .015  
Double Stage "L" 4.249 ± .015



	GEARHEAD P/N	GEAR RATIO	BACKLASH (MINUTES)	MAXIMUM RATED CONTINUOUS OUTPUT TORQUE 1500 rpm (LBS. IN.)	MAXIMUM RATED CONTINUOUS OUTPUT TORQUE 3500 rpm (LBS. IN.)	MAXIMUM RATED CONTINUOUS OUTPUT TORQUE 5000 rpm (LBS. IN.)	GEARHEAD INERTIA AT INPUT (LB-IN-SEC <sup>2</sup> )
SINGLE STAGE	P23003	3:1	6	520	343	273	1.22 X 10 <sup>-4</sup>
	P23004	4:1	6	482	346	285	5.24 X 10 <sup>-5</sup>
	P23005.5	5.5:1	6	439	339	290	2.65 X 10 <sup>-5</sup>
	P23007	7:1	6	405	329	288	1.93 X 10 <sup>-5</sup>
	P23010	10:1	6	325	280	253	1.35 X 10 <sup>-5</sup>
DOUBLE STAGE	P23016	16:1	10	698	619	571	5.32 X 10 <sup>-5</sup>
	P23022	22:1	10	716	654	614	2.70 X 10 <sup>-5</sup>
	P23028	28:1	10	728	676	643	1.96 X 10 <sup>-5</sup>
	P23040	40:1	10	740	703	676	1.36 X 10 <sup>-5</sup>
	P23049	49:1	10	535	515	501	1.90 X 10 <sup>-5</sup>
	P23055	55:1	10	615	593	578	1.34 X 10 <sup>-5</sup>
	P23070	70:1	10	540	525	515	1.33 X 10 <sup>-5</sup>
	P23100	100:1	10	411	404	399	1.33 X 10 <sup>-5</sup>

### GENERAL SPECIFICATIONS

peak torque rating is 15% above continuous rated torque

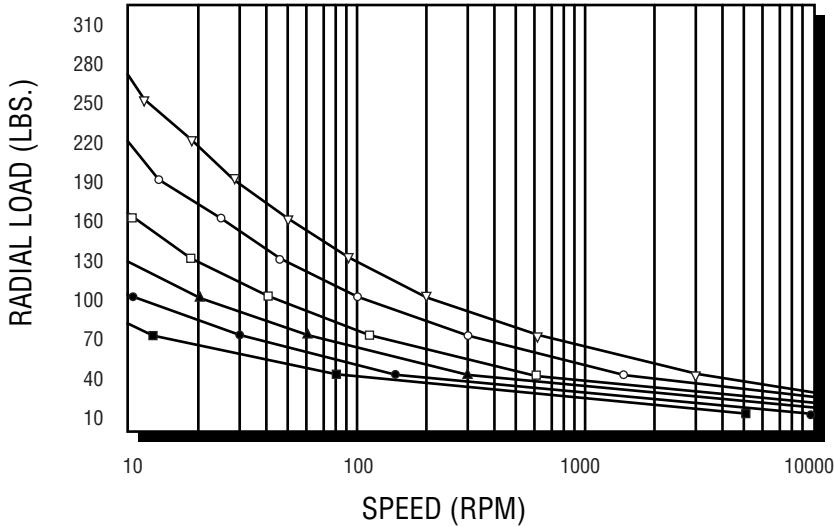
Construction Type	Ratio	Efficiency	Weight	Low Backlash Option	Maximum Input (rpm)
Planetary – Single Stage	3:1 to 10:1	90%	2.0 lbs.	3 arc minutes	5,000 rpm
Planetary – Double Stage	16:1 to 100:1	85%	3.3 lbs.	7 arc minutes	5,000 rpm

# SIZE 23 "P" SERIES BEARING LIFE VS. SHAFT LOAD

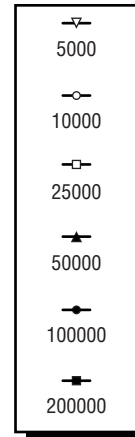


## PLANETARY GEARHEADS

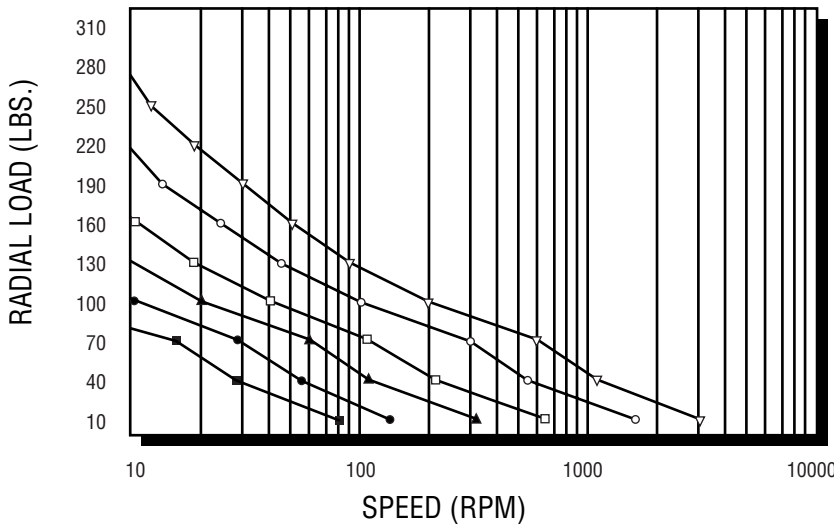
**AXIAL LOAD: 0 LBS.**



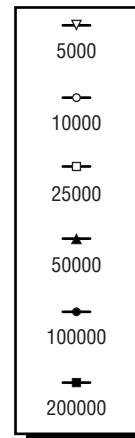
LIFE (HRS)



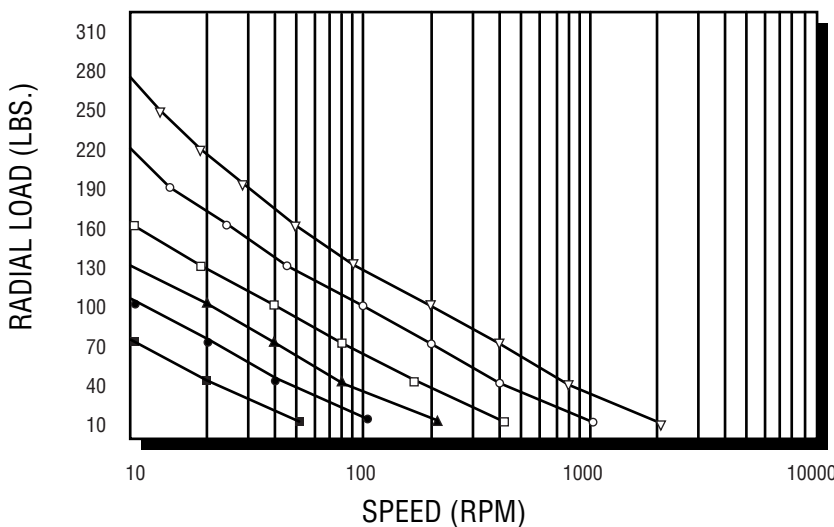
**AXIAL LOAD: 50 LBS.**



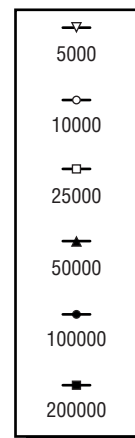
LIFE (HRS)



**AXIAL LOAD: 100 LBS.**



LIFE (HRS)



Speed (rpm) refers to the gearheads output shaft speed.

Life (hrs) = (# of lifetime revolutions) ÷ (60 x rpm).

$F_{radial}$  is calculated at one half the shaft length.

