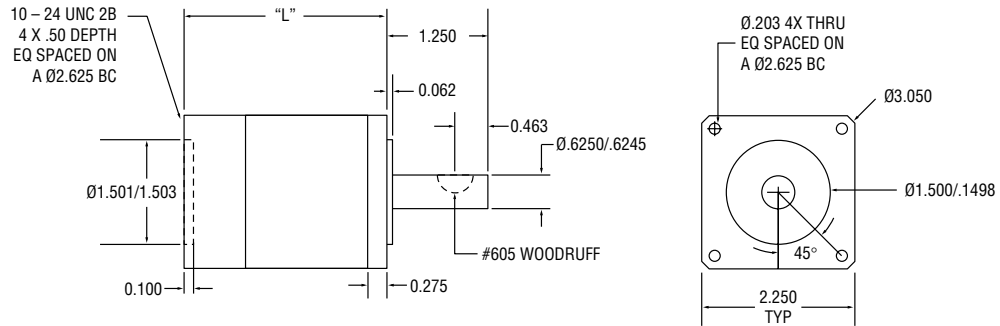




# SIZE 23

## "E" 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	E23003	3:1	6	442	292	232	1.22 X 10 <sup>-4</sup>
	E23004	4:1	6	410	294	242	5.24 X 10 <sup>-5</sup>
	E23005.5	5.5:1	6	373	288	247	2.65 X 10 <sup>-5</sup>
	E23007	7:1	6	344	279	245	1.93 X 10 <sup>-5</sup>
	E23010	10:1	6	277	238	215	1.35 X 10 <sup>-5</sup>
DOUBLE STAGE	E23016	16:1	10	521	463	427	5.32 X 10 <sup>-5</sup>
	E23022	22:1	10	536	490	460	2.70 X 10 <sup>-5</sup>
	E23028	28:1	10	545	506	481	1.96 X 10 <sup>-5</sup>
	E23040	40:1	10	553	525	506	1.36 X 10 <sup>-5</sup>
	E23049	49:1	10	400	385	375	1.90 X 10 <sup>-5</sup>
	E23055	55:1	10	460	443	432	1.34 X 10 <sup>-5</sup>
	E23070	70:1	10	404	393	385	1.33 X 10 <sup>-5</sup>
	E23100	100:1	10	308	303	298	1.33 X 10 <sup>-5</sup>

### GENERAL SPECIFICATIONS

peak torque rating is 15% above continuous rated torque

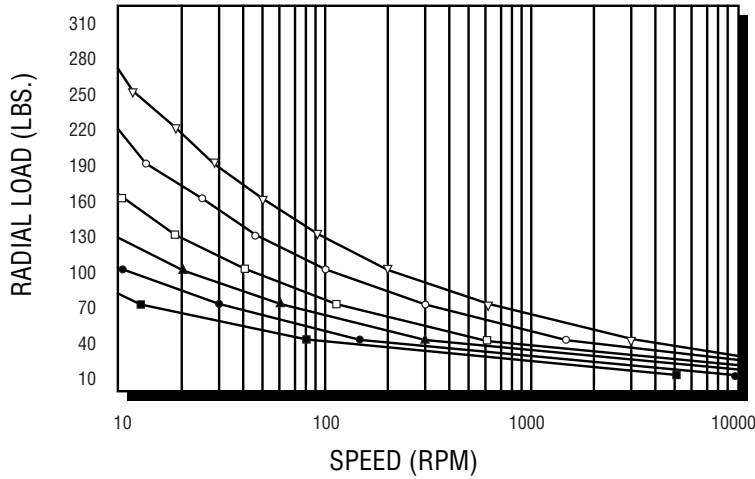
Construction Type	Ratio	Efficiency	Weight	Low Backlash Option	Maximum Input (rpm)
Planetary – Single Stage	3:1 to 10:1	90%	2.2 lbs.	3 arc minutes	5,000 rpm
Planetary – Double Stage	16:1 to 100:1	85%	3.63 lbs.	7 arc minutes	5,000 rpm



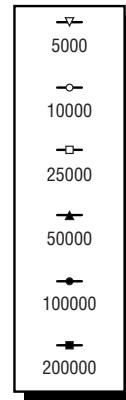
PLANETARY  
GEARHEADS

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

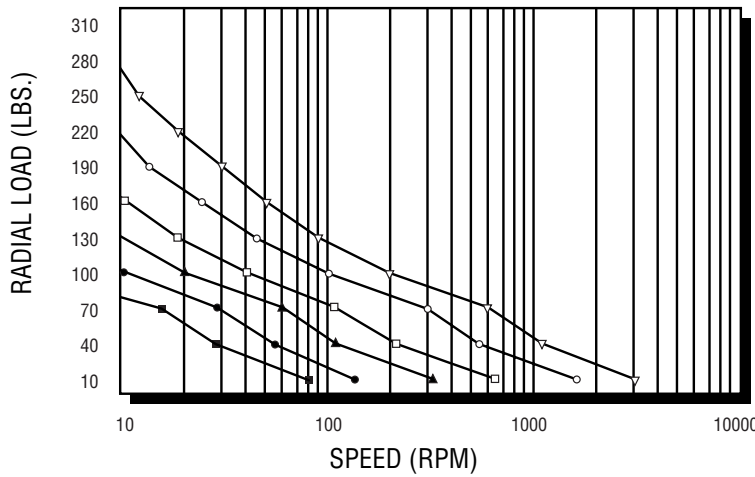
**AXIAL LOAD: 0 LBS.**



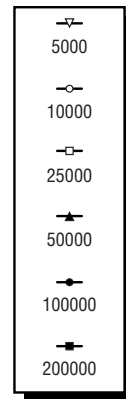
LIFE (HRS)



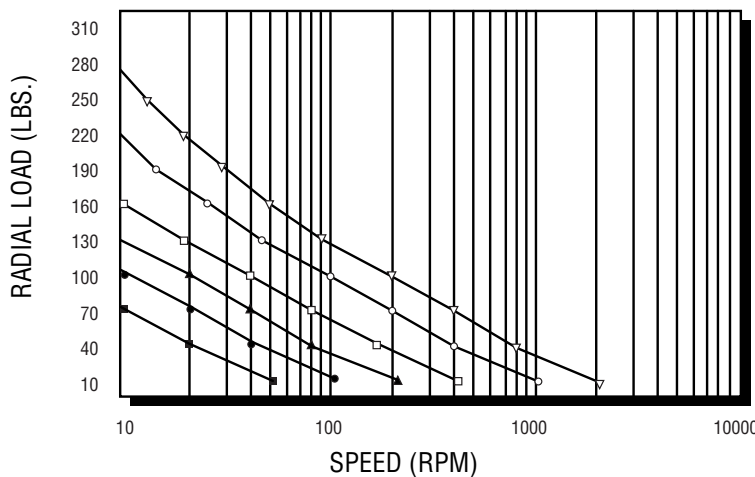
**AXIAL LOAD: 50 LBS.**



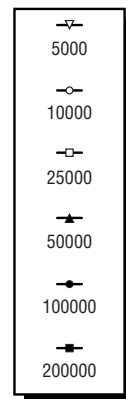
LIFE (HRS)



**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.

