



Dimensions in mm.

Ratio	5.5	22	30.2	88	121	166	352	484	665.5	915	
1 Number of Gear Stages	1	2	2	3	3	3	4	4	4	4	
2 Direction of Rotation	=	=	=	=	=	=	=	=	=	=	
3 Efficiency	0.85	0.75	0.75	0.65	0.65	0.65	0.55	0.55	0.55	0.55	
4 L (mm)	14.5	18.6	18.6	22.7	22.7	22.7	26.8	26.8	26.8	26.8	
5 Weight	g (oz)	6 (0.211)	9 (0.317)	9 (0.317)	12 (0.423)	12 (0.423)	12 (0.423)	15 (0.529)	15 (0.529)	15 (0.529)	15 (0.529)
6 Available with Motor – L2 - Length with motor (mm)											
13N 88	42.7	46.8	46.8	50.9	50.9	50.9	55	55	55	55	
12G 88	42.7	46.8	46.8	50.9	50.9	50.9	55	55	55	55	

Characteristics	Unit	R13 • 0 •	R13 2R • 0 •
7 Shaft Bearings		Sleeve	Ball Bearing
8 Maximum Static Torque	Nm (oz-in)	0.5 (71)	0.5 (71)
9 Maximum Radial Force			
@ 8mm from mounting face	N (lb)	5 (1.12)	20 (4.5)
10 Maximum Axial Force	N (lb)	8 (1.8)	10 (2.2)
11 Maximum Press Fit Force	N (lb)	100 (23)	100 (23)
12 Average Backlash @ no-load		1.25°	1.25°
13 Average Backlash @ 0.3 Nm		2°	2°
Shaft Play:			
14 -radial	µm	≤ 20	≤ 10
15 -axial	µm	50-150	≤50
16 Maximum Recommended Input Speed	rpm	7500	7,500
17 Operating Temperature Range:	°C (°F)	-30 to +65 (-22 to +150)	

