



**RATIOS**

1-Stage	2-Stage	3-Stage	4-Stage
4:1	14:1	51:1	189:1
5:1	16:1	59:1	218:1
	18:1	68:1	252:1
	19:1	71:1	264:1
	22:1	79:1	292:1
	25:1	93:1	305:1
	27:1	95:1	337:1
	29:1	100:1	344:1
	35:1	115:1	353:1
		124:1	369:1
		130:1	397:1
		139:1	408:1
		150:1	426:1
		169:1	459:1
		181:1	480:1
		195:1	493:1
		236:1	516:1
			531:1
			556:1
			596:1
			626:1
			642:1
			672:1
			721:1
			724:1
			777:1
			837:1
			875:1
			939:1
			1012:1
			1140:1
			1223:1
			1318:1
			1594:1

Actual ratios are rounded to the nearest integer

PARAMETER	1-STAGE	2-STAGE	3-STAGE	4-STAGE
Perm. Output Torque Nm	20	60	120	120
Gearbox Efficiency, approx.	0.80	0.75	0.70	0.65
Max. Backlash in °Deg	0.85	0.55	0.60	0.65
Operating temperature °C	-15 to +65	-15 to +65	-15 to +65	-15 to +65
Output side with ball bearings (2RS)	yes	yes	yes	yes
Max. load, radial N	400	600	1,000	1,300
Max. load, axial N	80	120	200	280
Gearbox length p mm	77.9±0.5	99.6±0.5	121.3±0.5	143.0±0.5
Gearbox length k (motor size 56 & 63) mm	104.1±0.6	134.1±0.6	155.8±0.6	177.5±0.6
Gearbox length q mm	112.4±0.5	134.1±0.5	155.8±0.5	177.5±0.5
Ø x Total length ( p + length from bearing flange) mm	81.0 x 126.9	81.0 x 148.6	81.0 x 170.3	81.0 x 192.0
Weight lbs	3.97	5.51	7.05	8.60

Consult Factory for 5-Stage Specifications