

3 RATING TABLE

Table 1

Output speed (r/min)			5		10		15		20		25		30	
Model	Speed ratio		Output torque	Input capacity	Output torque	Input capacity	Output torque	Input capacity	Output torque	Input capacity	Output torque	Input capacity	Output torque	Input capacity
	Shaft rotation	Case rotation	In-lb (Nm)	kW	In-lb (Nm)	kW	In-lb (Nm)	kW	In-lb (Nm)	kW	In-lb (Nm)	kW	In-lb (Nm)	kW
RV-15	57	56	1,692 (191)	0.13	1,373 (155)	0.22	1,213 (137)	0.29	1,107 (125)	0.35	1,045 (118)	0.41	992 (112)	0.49
	81	80												
	105	104												
	121	120												
	141	140												
RV-30	57	56	4,109 (464)	0.32	3,330 (376)	0.53	2,949 (333)	0.70	2,710 (306)	0.85	2,533 (286)	1.00	2,391 (270)	1.13
	81	80												
	105	104												
	121	120												
	153	152												
RV-60	57	56	7,847 (886)	0.62	6,368 (719)	1.00	5,642 (637)	1.33	5,172 (584)	1.63	4,845 (547)	1.91	4,579 (517)	2.17
	81	80												
	101	100												
	121	120												
	153	152												
RV-160	81	80	19,272 (2,176)	1.52	15,712 (1,774)	2.48	13,887 (1,568)	3.28	12,762 (1,441)	4.02	11,894 (1,343)	4.69	11,283 (1,274)	5.34
	101	100												
	129	128												
	145	144												
	171	170												
RV-320	81	80	38,624 (4,361)	3.04	31,335 (3,538)	4.94	27,774 (3,136)	6.57	25,516 (2,881)	8.05	23,160 (2,615)	9.41	22,567 (2,548)	10.7
	101	100												
	118.5	117.5												
	129	128												
	141	140												
	171	170												
	185	184												
RV-450	81	80	54,335 (6,135)	4.28	44,088 (4,978)	6.95	39,058 (4,410)	9.24	35,843 (4,047)	11.3	33,505 (3,783)	13.2		
	101	100												
	118.5	117.5												
	129	128												
	*154.8	153.8												
	171	170												
	*192.4	191.4												
RV-550	123	122	66,398 (7497)	5.23	53,901 (6086)	8.50	47,737 (5390)	11.29	43,831 (4949)	13.82				
	141	140												
	163.5	162.5												
	*192.4	191.4												

Notes: 1. Set maximum input shaft revolutions to a value equal to or lower than the value of maximum allowable output revolutions multiplied by the above speed ratio for each type.

2. The input capacity (kW) in the above table is determined by the efficiency of these reduction gears.

3. The output torque (In-lb) is so determined that the service life may be maintained constant for any output revolutions. ($N \cdot T^{\frac{10}{3}} = \text{Constant}$)

4. The rated torque is a torque at an output speed of 15 r/min, which is used as a basis for service life calculations. (Refer to the rated service life, page 97).

5. The $\frac{GD^2}{4}$ value is a value considering both gear tooth widths of reduction gear assembly and input gear. The $\frac{GD^2}{4}$ value at the shaft of the input gear is not included.

40		50		60		Allowable max. output speed (Continuous) r/min	Allowable acceleration deceleration torque In-lb (Nm)	Momentary max. allowable torque (E-stop) In-lb (Nm)	Lost motion arc.min.	Torsional rigidity (Stiffness) (Typical Value) In-lb/arc.min. (Nm/arc.min.)	I (= $\frac{GD^2}{4}$) (Input inertia)		Weight lb (kg)
Output torque In-lb (Nm)	Input capacity kW	Output torque In-lb (Nm)	Input capacity kW	Output torque In-lb (Nm)	Input capacity kW						Tooth width mm	kg-m ²	
903 (102)	0.57	850 (96)	0.67	806 (91)	0.76	60	2,427 (274)	6,076 (686)	1	347 (39.2)	8	0.075 × 10 ⁻⁴	7.7 (3.5)
												0.0488 × 10 ⁻⁴	
												0.0355 × 10 ⁻⁴	
												0.0295 × 10 ⁻⁴	
												0.0241 × 10 ⁻⁴	
2,196 (248)	1.39	2,055 (232)	1.62			50	7,378 (833)	14,755 (1,666)	1	868 (98)	10	0.2323 × 10 ⁻⁴	14.3 (6.5)
												0.168 × 10 ⁻⁴	
												0.128 × 10 ⁻⁴	
												0.109 × 10 ⁻⁴	
												0.0823 × 10 ⁻⁴	
4,198 (474)	2.65					40	14,104 (1,592.5)	28,208 (3,185)	1	1,736 (196)	10	0.7312 × 10 ⁻⁴	22 (10.0)
												0.513 × 10 ⁻⁴	
												0.404 × 10 ⁻⁴	
												0.328 × 10 ⁻⁴	
												0.245 × 10 ⁻⁴	
						45	34,718 (3,920)	58,586 (6,615)	1	3,472 (392)	15	1.963 × 10 ⁻⁴	44.1 (20.0)
												1.505 × 10 ⁻⁴	
												1.105 × 10 ⁻⁴	
												0.903 × 10 ⁻⁴	
												0.755 × 10 ⁻⁴	
						35	69,436 (7,840)	108,493 (12,250)	1	8,679 (980)	16	0.523 × 10 ⁻³	80.5 (36.5)
												0.400 × 10 ⁻³	
												0.328 × 10 ⁻³	
												0.295 × 10 ⁻³	
												0.263 × 10 ⁻³	
												2.005 × 10 ⁻⁴	
												1.793 × 10 ⁻⁴	
						25	97,644 (11,025)	164,910 (18,620)	1	10,415 (1,176)	18	0.893 × 10 ⁻³	110.2 (50.0)
												0.695 × 10 ⁻³	
												0.575 × 10 ⁻³	
												0.518 × 10 ⁻³	
												0.408 × 10 ⁻³	
												0.358 × 10 ⁻³	
						20	119,343 (13,475)	238,685 (26,950)	1	14,755 (1,666)	22	1.178 × 10 ⁻³	156.5 (71)
												0.994 × 10 ⁻³	
												0.820 × 10 ⁻³	
												0.655 × 10 ⁻³	

6. If a higher speed than the above allowable maximum output speed is required, contact Nabtesco for further information.
7. If other speed ratio than the above list is required, contact Nabtesco for further information.
8. These reduction gear ratios are indivisible figures. Actually, 154.8=2,013/13 and 192.4=1,347/7.
9. The output revolution is for forward-reverse changeover applications and not applicable for continuous rotation in a single direction. Contact Nabtesco when using the reduction gear for continuous single-direction rotation.