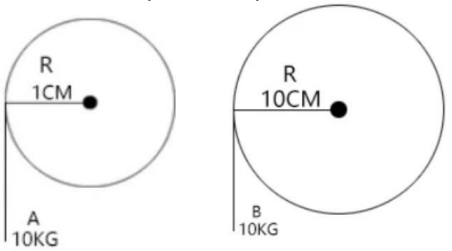
Product Specifications & Dimensions

Calculate the required torque as shown in the figure.



Required Torque: 10 kg·cm

Required Torque: 100 kg·cm

Required Torque Calculation = Drive Radius (cm) × Driven Mass (kg)
(Example: A = 10 kg; Required Torque = A × R = 10 kg·cm)

(ExampleB: 10 kg; Required Torque = A × R = 10 × 10 = 100 kg·cm)

Common Unit Conversions				
gf.cm	kgf.cm	N.m	mN.m	N.cm
1	0.001	0.00098	0.098	0.0098
1000	1.0	0.098	98	9.8
1,020,408	10.204	1.0	1000	100
10.2	0.01	0.001	1.0	0.1
102.04	0.102	0.01	10	1.0

This motor must not be operated under overload or locked-rotor conditions; please select the appropriate specifications (the reduction ratio determines the output torque) for proper use.

Operating the motor under overload or stalled conditions may result in motor burnout or gear train failure. If product damage occurs as a result of such improper usage, eligibility for after-sales services (returns, exchanges, or warranty

GA25-310 DC Geared Motor		Motor Speed (Before Reduction): 8000 RPM										
Mechanical Parameters	Reduction Ratio	4.4	9.6	21.3	35.5	46.8	78	103	171	226	377	500
	Max. No-load Speed	1800	830	380	225	171	103	78	47	35	21	16
	Dimension L (mm)	17		19	21		23		25		27	
	Weight ≈ (g)	60	60	60	65	65	65	65	70	70	70	70
Input Voltage	**The following parameters represent data obtained from speed-measuring products using a 12V DC power supply (Model 1280).**											
12V	No-load Current (A)	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
	Rated Speed (RPM)	1260	581	266	158	120	72	54	33	25	15	11
	Rated Torque (kgf·cm)	0.11	0.23	0.45	0.74	0.95	1.64	2.2	3.5	4.7	7.3	9
	Rated Current (A)	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	Rated Input Power	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
	Maximum Load	0.36	0.8	1.8	2.5	3.3	5.7	7.5	9	11	18	20
	Maximum Load	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
	Maximum Load Power	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8
Input Voltage	**The following parameters represent data obtained from speed-measuring products using a 24VDC power supply (Model 2480).**											
24V	No-load Current (A)	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
	Rated Speed (RPM)	1260	581	266	158	120	72	54	33	25	15	11
	Rated Torque (kgf·cm)	0.11	0.23	0.45	0.74	0.95	1.64	2.2	3.5	4.7	7.3	9
	Rated Current (A)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	Rated Input Power	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
	Maximum Load	0.36	0.8	1.8	2.5	3.3	5.7	7.5	9	11	18	20
	Maximum Load	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
	Maximum Load Power	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4
GA25-310 DC Geared Motor		**Motor Speed (Before Reduction): 4000 RPM**										
Mechanical Parameters	Reduction Ratio	4.4	9.6	21.3	35.5	46.8	78	103	171	226	377	500
	Max. No-load Speed	909	417	188	113	85	51	39	23	18	11	8
	Dimension L (mm)	17		19	21		23		25		27	
	Weight ≈ (g)	60	60	60	65	65	65	65	70	70	70	70
Input Voltage	**The following parameters represent data obtained from speed measurements of the product using a 6V DC power supply (Model 0640).**											
6V	No-load Current (A)	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	Rated Speed (RPM)	727	333	150	90	68	41	31	19	14	8	6
	Rated Torque (kgf·cm)	0.03	0.03	0.15	0.25	0.3	0.5	0.7	1.2	1.5	2.6	3.5
	Rated Current (A)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	Rated Input Power	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
	Maximum Load	0.1	0.22	0.5	0.8	1	0.85	2.5	4	5.3	9	12
	Maximum Load	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36	0.36

	Maximum Load Power	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Input Voltage	**The following parameters represent the data obtained from speed-measuring product model 1240 using a 12V DC power supply.**											
12V	No-load Current (A)	0.02	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	Rated Speed (RPM)	727	333	150	90	68	41	31	19	14	8	6
	Rated Torque (kgf·cm)	0.03	0.03	0.15	0.25	0.3	0.5	0.7	1.2	1.5	2.6	3.5
	Rated Current (A)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	Rated Input Power	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	Maximum Load	0.1	0.22	0.5	0.8	1	0.85	2.5	4	5.3	9	12
	Maximum Load	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
	Maximum Load Power	3	3	3	3	3	3	3	3	3	3	3