



## INTRODUCTION

King Right Motor has been specializing in the manufacturing of DC magnet motors since 1975. As an ISO-9001 certified company, we are capable of undertaking extensive research and developments of any possible new projects with customers' application.

Backed by King Right Motor's 30 years more of accumulated experience and matured techniques, we are confident in bringing you high quality DC motors with sizes and powers ranging from 43mm to 125mm, 5W to 1000W respectively. Designed for wide applications such as transmission of spur gear, worm gear, planetary gear and so forth.

Call us to find out how we can meet your exact specifications and fulfill your custom order. Browse our website for more details. If your request (speed, shaft, flange, IP LEVEL, encoder type, application etc.) is different, please contact us directly.

### PRODUCT APPLICATION

1. GARAGE DOOR
2. LAWN MOWER
3. BILGE PUMP
4. MACHINE USE
5. HOSPITAL BED
6. ROAD CLEANER
7. HEALTH EXERCISE
8. WIPPER
9. STARTER
10. VEHICLE
11. LINEAR ACTUATOR



Andrew Chuang  
President



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# DC MOTOR

M3928



φ 43.5mm , 20W  
3 - 8 Ncm

M3929



φ 43mm , 20W  
3 - 8 Ncm

F5539



φ 61mm , 40W  
8 - 16 Ncm

M5844



φ 63.5mm , 50W  
12 - 16 Ncm

M5946



φ 64.5mm , 60W  
14 - 19 Ncm

M6551



φ 70.5mm , 70W  
15 - 28 Ncm

KR7152



φ 80mm , 120W  
26 - 36 Ncm

SM7152



φ 80mm , 120W  
26 - 36 Ncm

M4835



φ 54mm , 30W  
5 - 11 Ncm

M5850



φ 63.5mm , 55W  
13 - 17 Ncm

KR7135



φ 80mm , 80W  
16 - 30 Ncm

F7147H



φ 80mm , 120W  
30 - 50 Ncm

M7152H



φ 80mm , 150W  
30 - 55 Ncm

MT7255-2



φ 80mm , 250W  
45 - 80 Ncm

M7165



φ 80mm , 200W  
30 - 60 Ncm

M8156



φ 89mm , 250W  
45 - 80 Ncm

M7185



φ 80mm , 230W  
40 - 75 Ncm

M9480T



φ 100mm , 150W  
40 - 60 Ncm

M1084



φ 109.5mm , 500W  
90 - 160 Ncm

M1080



φ 109.5mm , 350W  
80 - 140 Ncm

M9480LT



φ 100mm , 300W  
50 - 90 Ncm

M1188R



φ 123.5mm , 700W  
120 - 200 Ncm

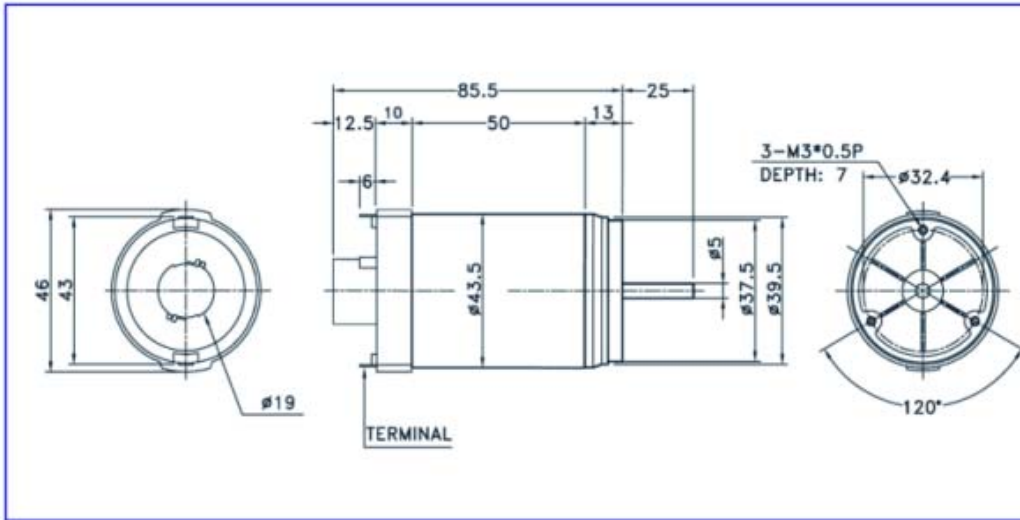
1N.cm=0.102 kgcm  
=1.42 oz-in



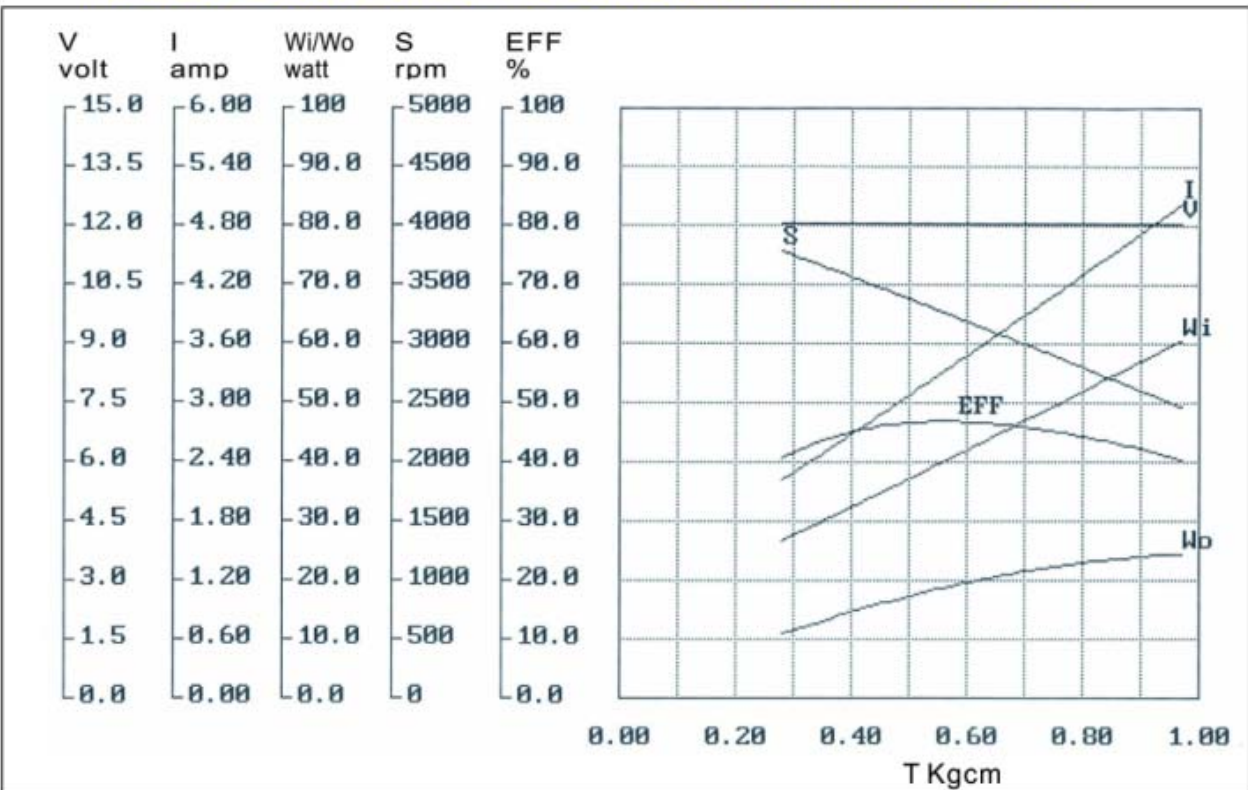
φ 43.5mm, 3-8Ncm, 20W

Weight : 0.4Kg/pcs

## M3928



### 12VDC No Load 4600rpm Torque/Speed Performance Curve



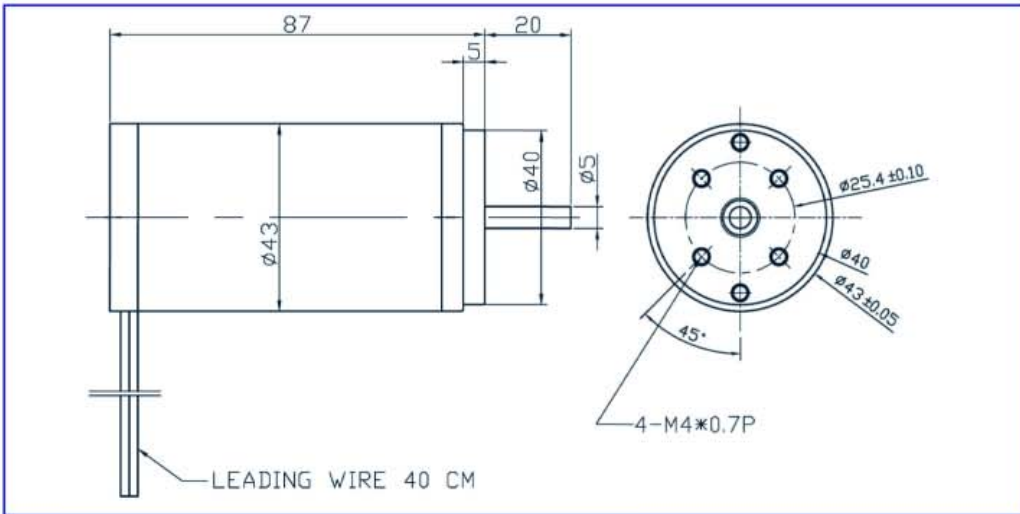
NO	R.P.M.	VOLT (V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	3788	12.07	2.20	26.6	0.28	10.9	41.0
2	3584	12.08	2.64	31.9	0.38	14.0	43.9
3	3417	12.07	3.00	36.2	0.48	16.8	46.4
4	3242	12.07	3.37	40.7	0.58	19.3	47.4
5	3050	12.07	3.81	46.0	0.68	21.3	46.3
6	2849	12.07	4.18	50.5	0.78	22.8	45.1
7	2832	12.07	4.25	51.3	0.78	22.7	44.2
8	2653	12.07	4.62	55.8	0.87	23.7	42.5
9	2445	12.06	5.05	60.9	0.98	24.6	40.4

DC MOTOR

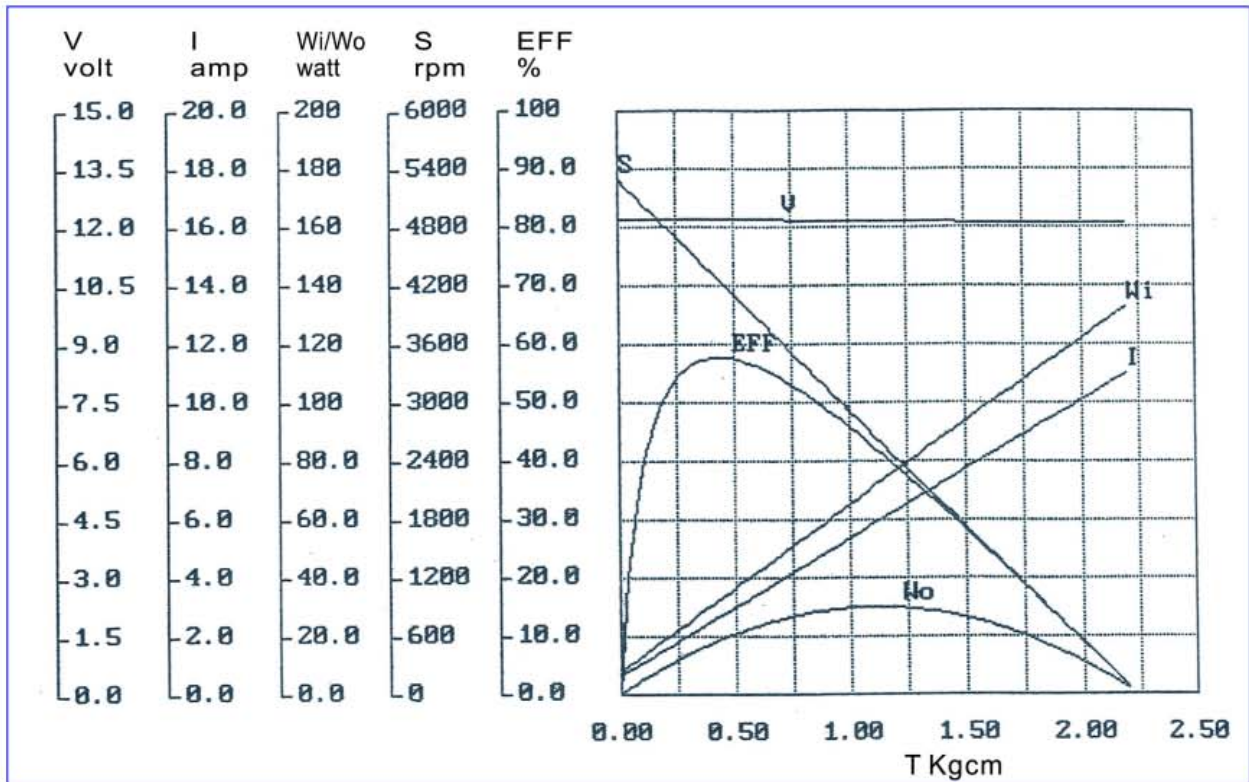


φ 43mm,3-8Ncm,20W  
 Weight : 0.4Kg/pcs  
 With encoder available

M3929



12VDC No Load 4900rpm Torque/Speed Performance Curve



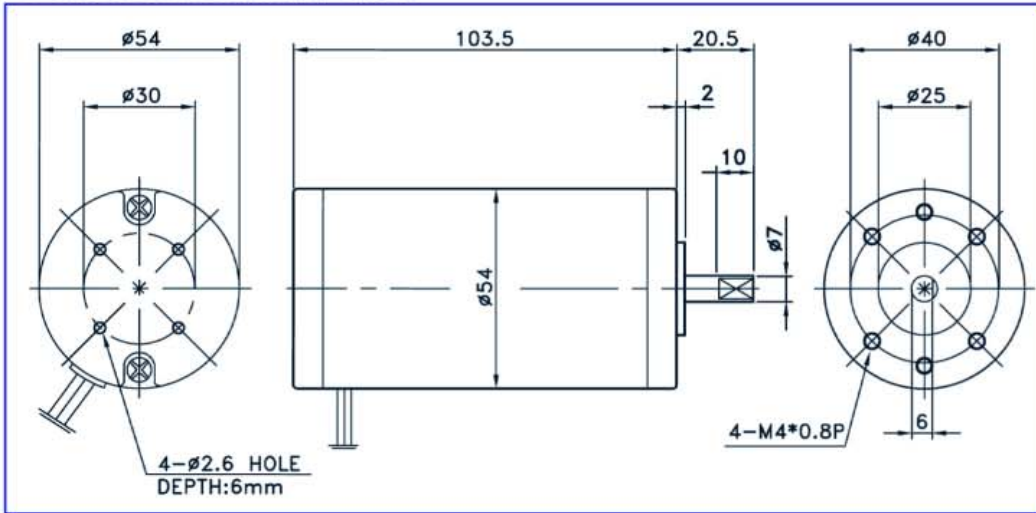
NO	R.P.M.	VOLT (V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	4619	12.19	1.95	23.8	0.28	13.3	55.9
2	4391	12.16	2.39	29.1	0.38	17.1	58.8
3	4187	12.19	2.86	34.9	0.47	20.2	57.9
4	3954	12.16	3.35	40.7	0.58	23.5	57.7
5	3743	12.19	3.81	46.4	0.67	25.7	55.4
6	3516	12.16	4.27	51.9	0.77	27.8	53.6
7	3294	12.19	4.76	58.0	0.87	29.4	50.7
8	3064	12.19	5.23	63.8	0.98	30.8	48.3

DC MOTOR

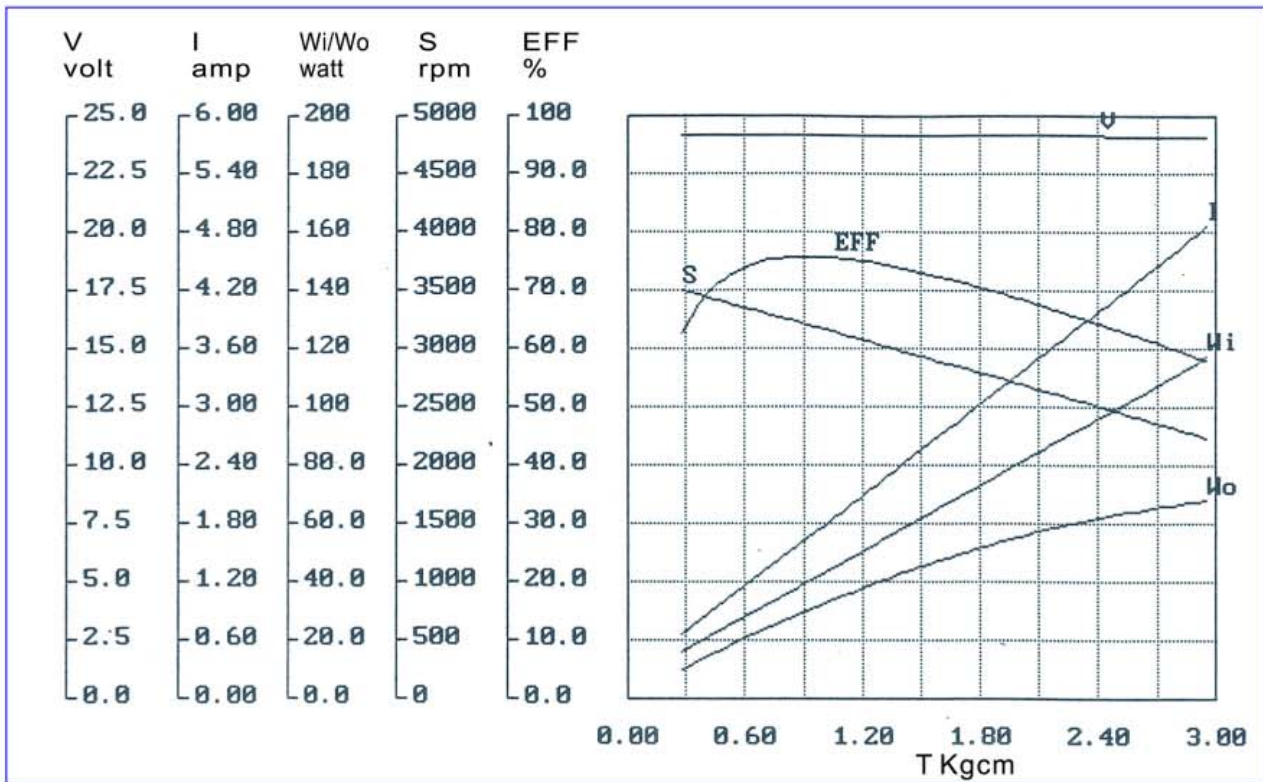


$\phi$  54mm ,5-11 Ncm , 30W  
 Weight : 0.8 Kg/pcs  
 With encoder/brake available  
 Front Cover : Square/Circle

## M4835



### 12VDC No Load 3600rpm Torque/Speed Performance Curve



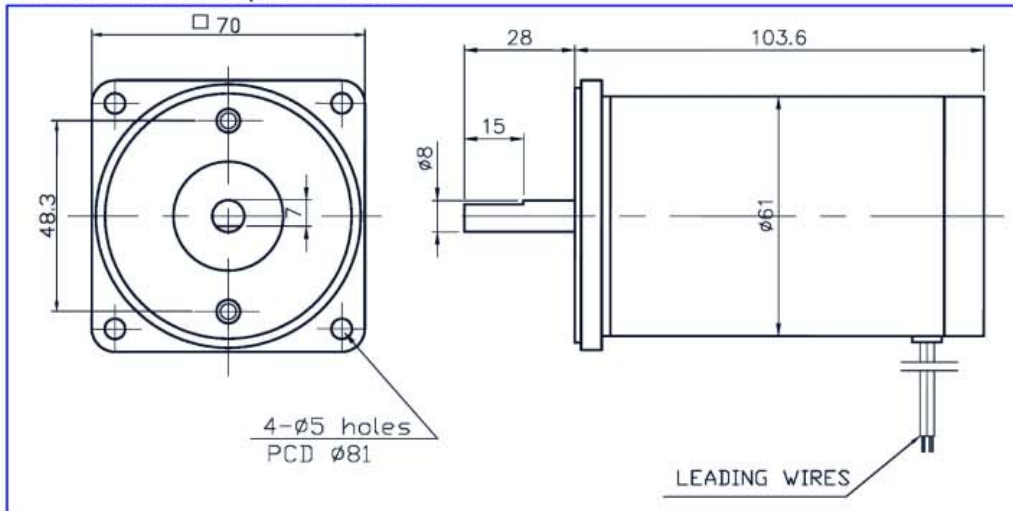
DC MOTOR

NO	R.P.M.	VOLT(V)	I(AMP)	INPUT(W)	TORQUE(KG-CM)	OUTPUT(W)	EFF(%)
1	3505	24.15	0.66	15.9	0.28	10.1	63.5
2	3364	24.15	1.12	27.0	0.57	19.7	73.0
3	3175	24.18	1.76	42.6	0.98	31.9	74.9
4	3038	24.15	2.18	52.6	1.28	39.9	75.6
5	2852	24.15	2.86	69.1	1.69	49.5	71.6
6	2704	24.15	3.32	80.2	1.98	54.9	68.5
7	2562	24.12	3.81	91.9	2.29	60.2	65.5
8	2369	24.12	4.44	107.1	2.70	65.6	61.3
9	2210	24.12	4.93	118.9	3.00	68.0	57.2

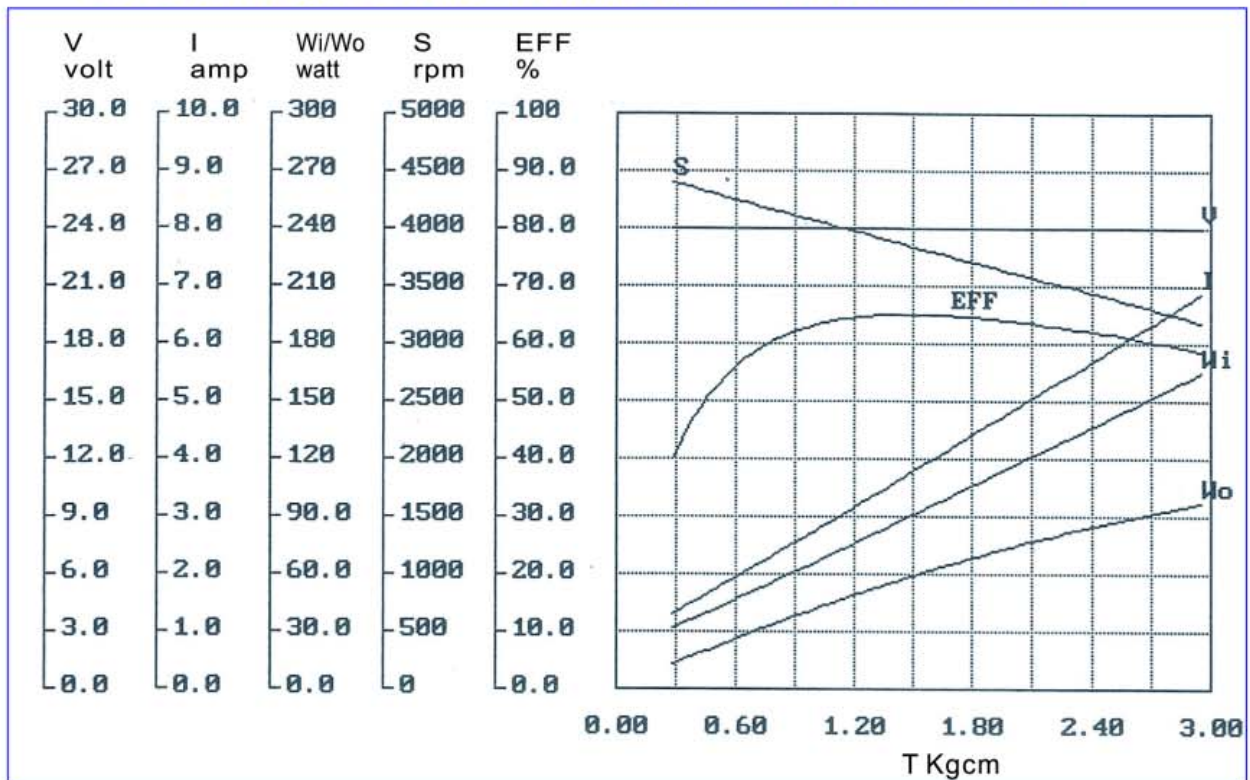


$\phi$  61mm ,8-16 Ncm , 40W  
 Weight : 1 Kg/pcs  
 With encoder/brake available  
 Front Cover : Square/Circle

F5539



## 24VDC No Load 4400rpm Torque/Speed Performance Curve

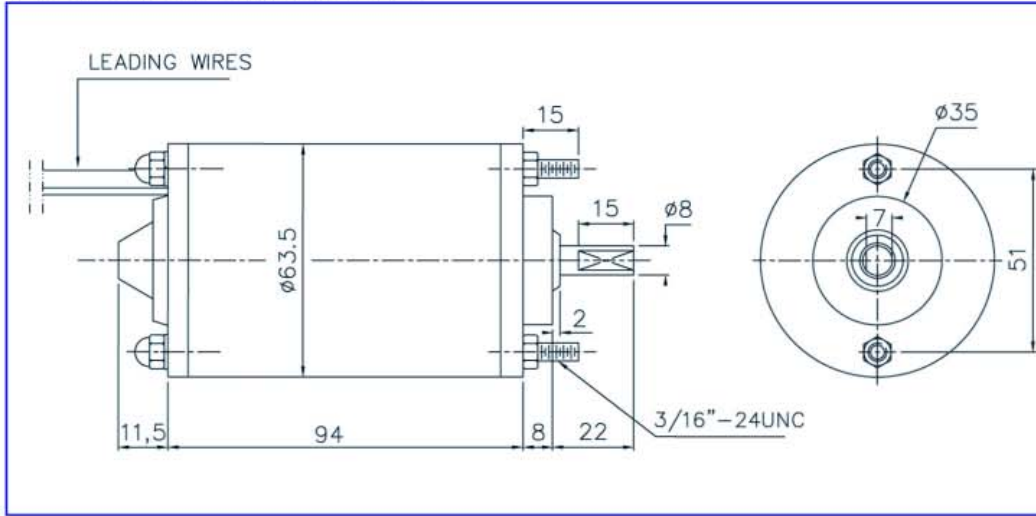


NO	R.P.M.	VOLT (V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	4400	24.03	1.32	31.7	0.28	12.6	39.7
2	4263	24.03	1.90	45.7	0.58	25.4	55.6
3	4077	24.00	2.71	65.0	0.98	41.0	63.1
4	3942	24.03	3.32	79.8	1.28	51.8	64.9
5	3761	24.03	4.18	100.4	1.68	64.8	64.5
6	3624	24.03	4.81	115.6	1.99	74.0	64.0
7	3488	24.00	5.45	130.8	2.29	82.0	62.7
8	3305	24.01	6.30	151.3	2.70	91.6	60.5
9	3163	24.00	6.96	167.0	3.00	97.4	58.3

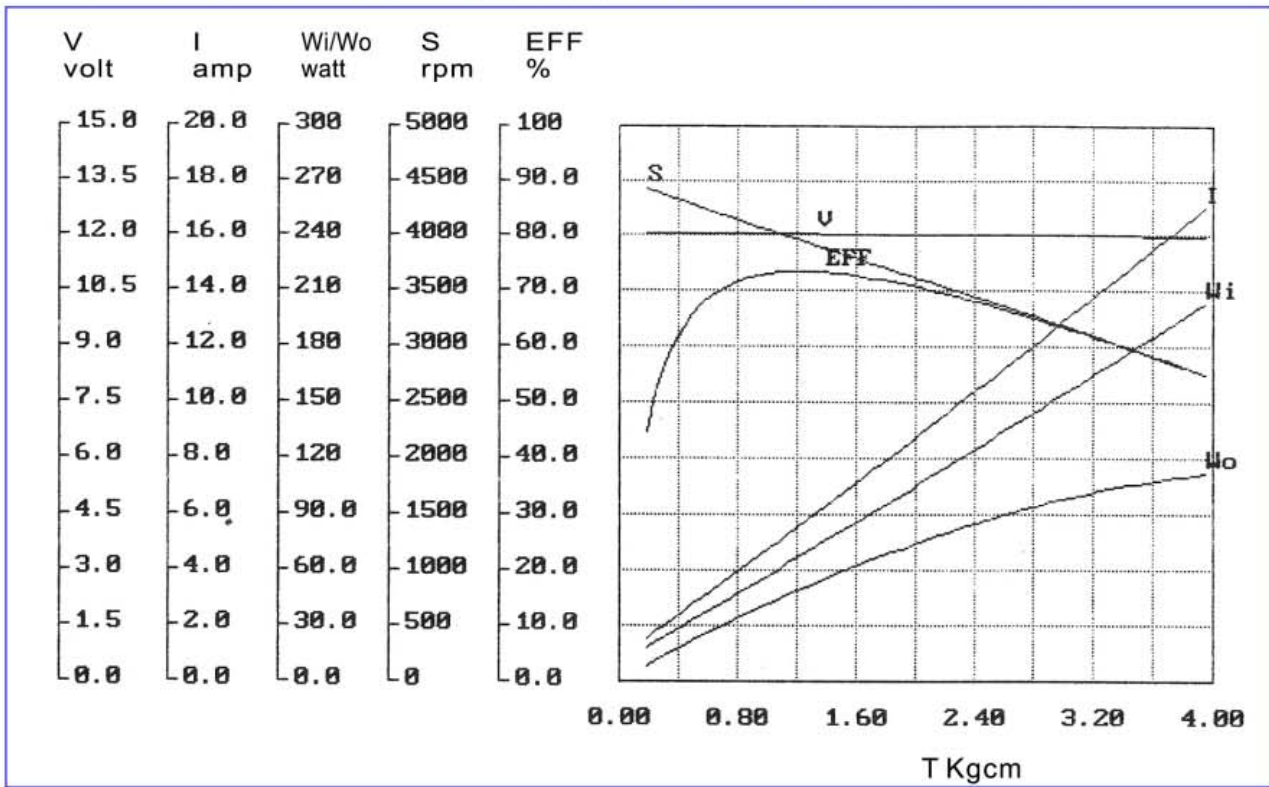


φ 63.5mm , 12-16 Ncm , 50W  
 Weight : 1.2 Kg/pcs  
 Front Cover : Square/Circle

**M5844**



**12VDC No Load 4500rpm Torque/Speed Performance Curve**



DC MOTOR

NO	R.P.M.	VOLT (V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	4432	12.05	1.53	18.4	0.18	8.2	44.6
2	4297	12.04	2.63	31.7	0.47	20.7	65.3
3	4112	12.04	4.24	51.0	0.87	36.7	72.0
4	3973	12.04	5.43	65.4	1.17	47.7	72.9
5	3795	12.01	7.03	84.4	1.58	61.5	72.9
6	3665	12.01	8.25	99.1	1.88	70.7	71.3
7	3496	12.00	9.91	118.9	2.29	82.1	69.0
8	3364	12.01	11.17	134.2	2.59	89.4	66.6
9	3189	11.99	12.88	154.4	3.00	98.2	63.6
10	3053	11.99	14.18	170.0	3.30	103.4	60.8
11	2871	11.96	15.93	190.5	3.71	109.3	57.4
12	2723	11.96	17.26	206.4	4.01	112.0	54.3



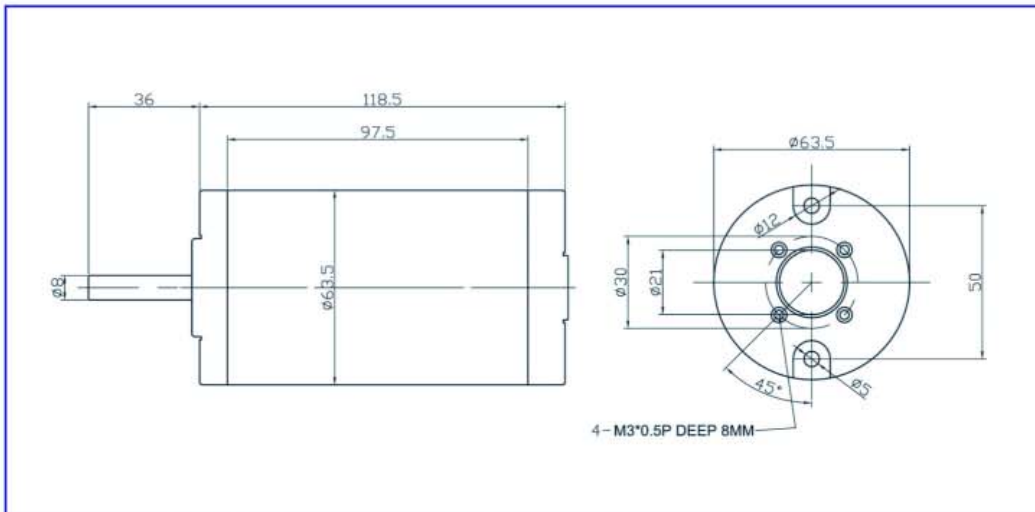


φ 63.5mm , 13-17 Ncm , 55W

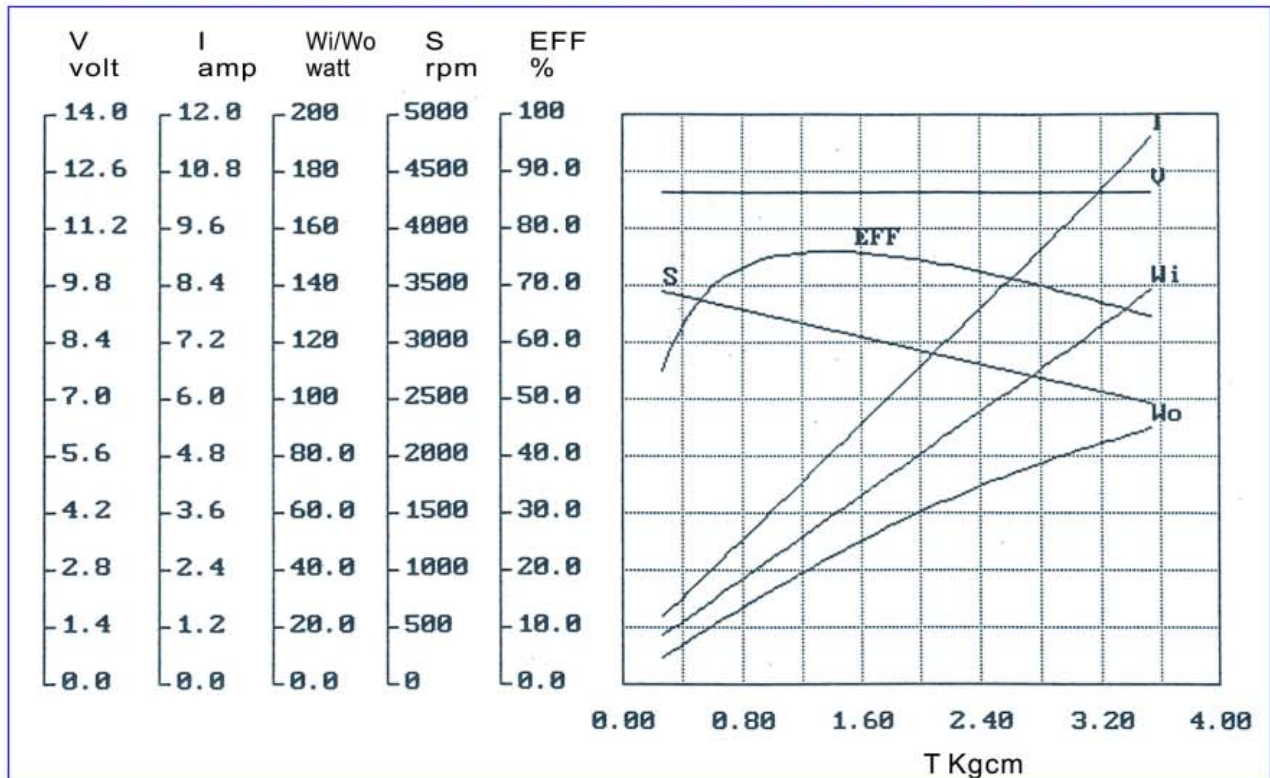
Weight : 1.2 Kg/pcs

With encoder/brake available

## M5850



### 12VDC No Load 3600rpm Torque/Speed Performance Curve

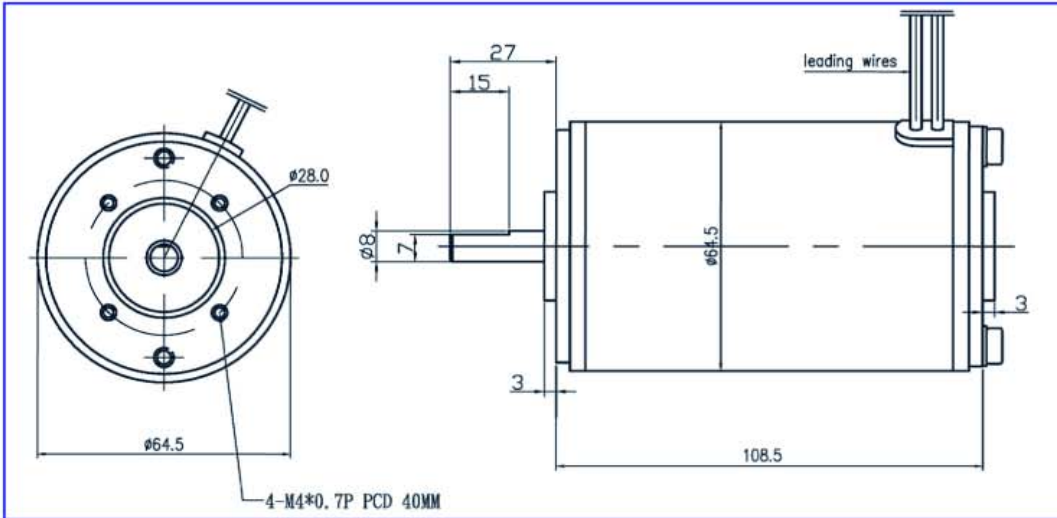


NO	R.P.M.	VOLT (V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	3452	12.10	1.44	17.4	0.27	9.6	55.2
2	3301	12.10	2.92	35.3	0.76	25.7	72.8
3	3183	12.10	4.14	50.1	1.16	37.9	75.6
4	3041	12.07	5.62	67.8	1.65	51.5	76.0
5	2889	12.07	7.13	86.1	2.14	63.4	73.6
6	2773	12.07	8.38	101.1	2.54	72.3	71.5
7	2653	12.07	9.60	115.9	2.93	79.8	68.9
8	2636	12.07	9.61	116.0	2.97	80.3	69.2
9	2459	12.06	11.70	141.1	3.59	90.6	64.2

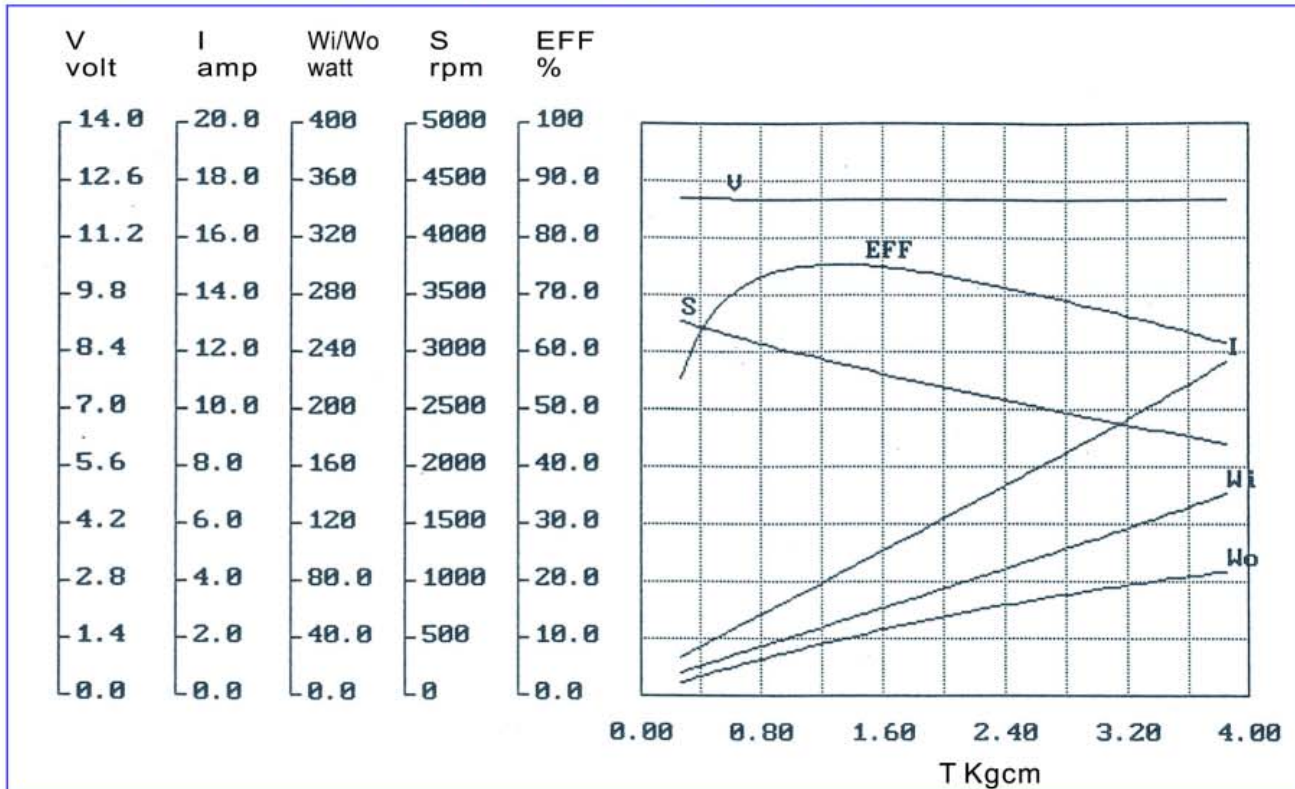


φ 64.5mm , 14-19 Ncm , 60W  
 Weight : 1.2 Kg/pcs  
 With encoder/brake available

## M5946



### 12VDC No Load 3300rpm Torque/Speed Performance Curve



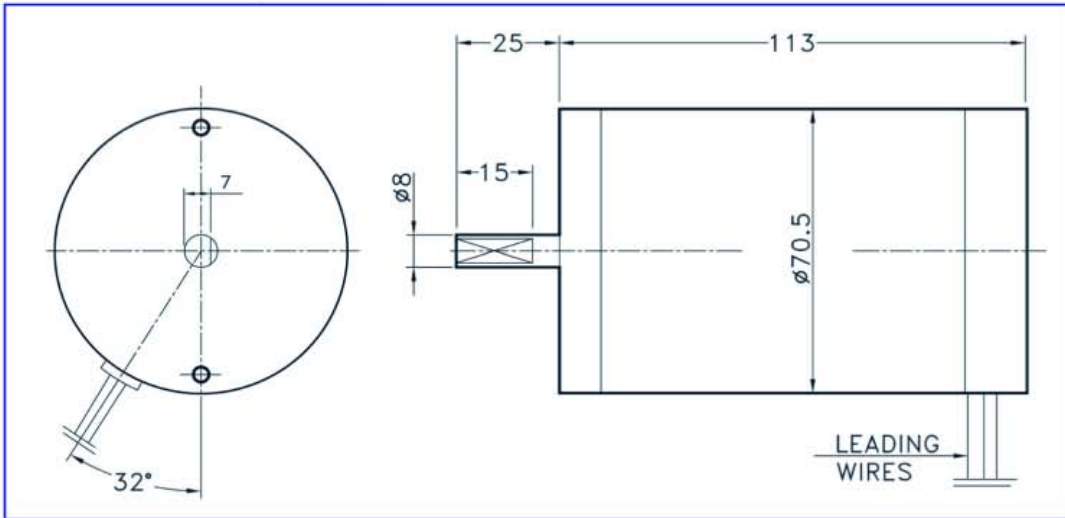
DC MOTOR

NO	R.P.M.	VOLT(V)	I(AMP)	INPUT(W)	TORQUE(KG-CM)	OUTPUT(W)	EFF(%)
1	3268	12.16	1.34	16.3	0.27	9.1	55.8
2	3085	12.16	2.74	33.3	0.76	24.1	72.4
3	2952	12.14	3.78	45.9	1.15	34.8	75.8
4	2809	12.13	5.10	61.9	1.60	46.1	74.5
5	2671	12.13	6.40	77.6	2.07	56.7	73.1
6	2562	12.13	7.47	90.6	2.46	64.7	71.4
7	2403	12.10	9.23	111.7	3.05	75.2	67.3
8	2306	12.13	10.40	126.2	3.44	81.4	64.5
9	2187	12.13	11.83	143.5	3.91	87.7	61.1

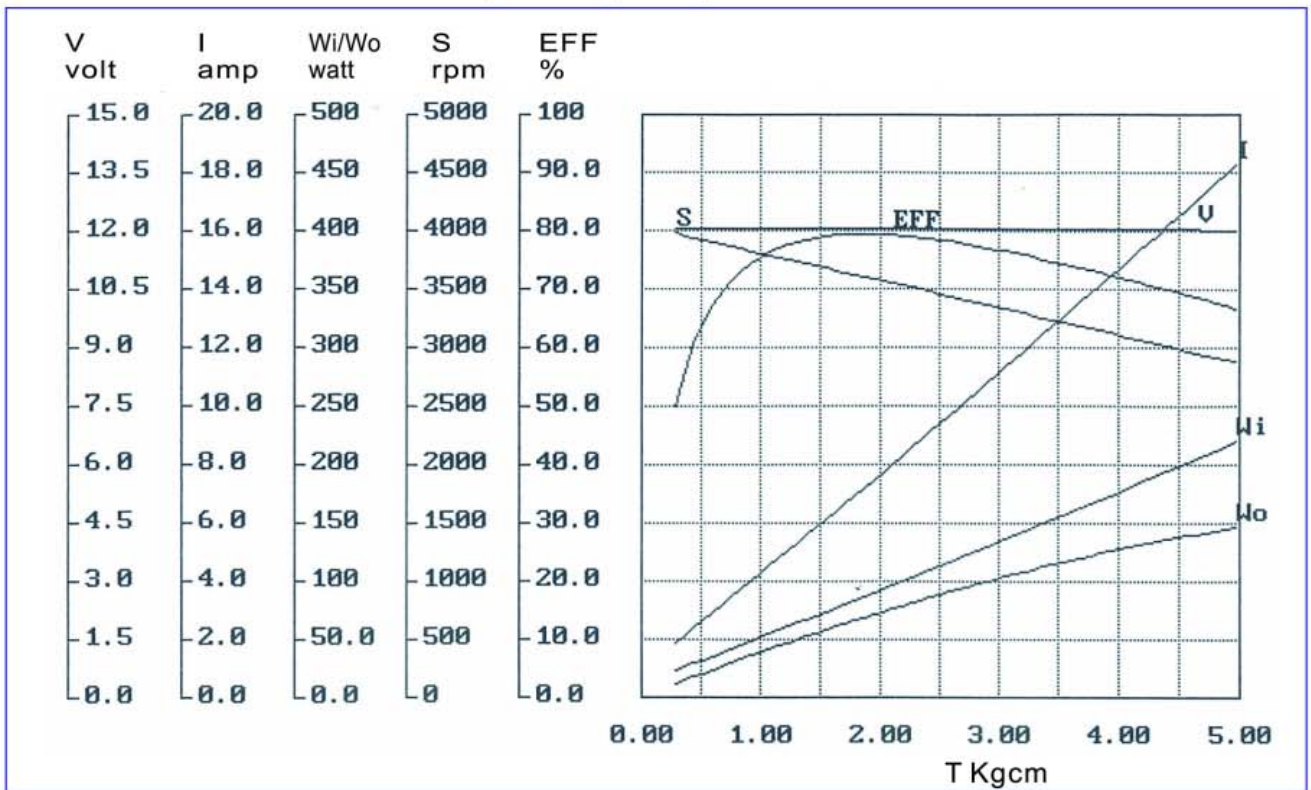


$\phi$  70.5mm , 15-28 Ncm , 70W  
 Weight : 1.5 Kg/pcs  
 With encoder/brake available  
 Front Cover : Square/Circle

M6551



## 12VDC No Load 4000rpm Torque/Speed Performance Curve



NO	R.P.M.	VOLT (V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	3976	12.06	1.88	22.7	0.28	11.4	50.2
2	3858	12.07	3.57	43.1	0.78	30.9	71.7
3	3736	12.04	5.25	63.2	1.28	49.1	77.7
4	3595	12.05	7.30	88.0	1.89	69.7	79.2
5	3483	12.06	9.01	108.7	2.40	85.8	78.9
6	3366	12.04	10.79	129.9	2.91	100.5	77.4
7	3245	12.04	12.60	151.7	3.41	113.5	74.8
8	3105	12.03	14.79	177.9	4.02	128.1	72.0
9	2984	12.04	16.65	200.5	4.53	138.7	69.2
10	2857	12.01	18.53	222.5	5.04	147.7	66.4

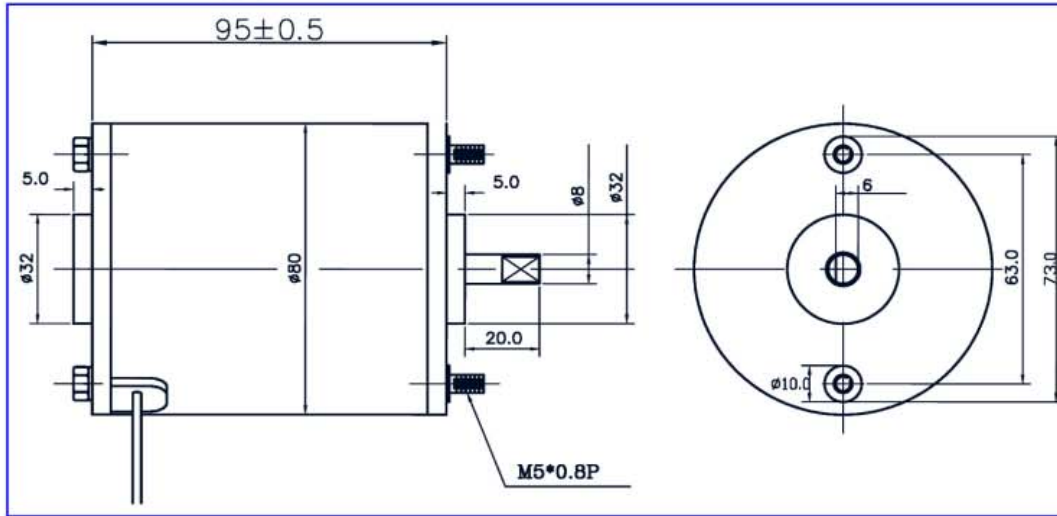
DC MOTOR



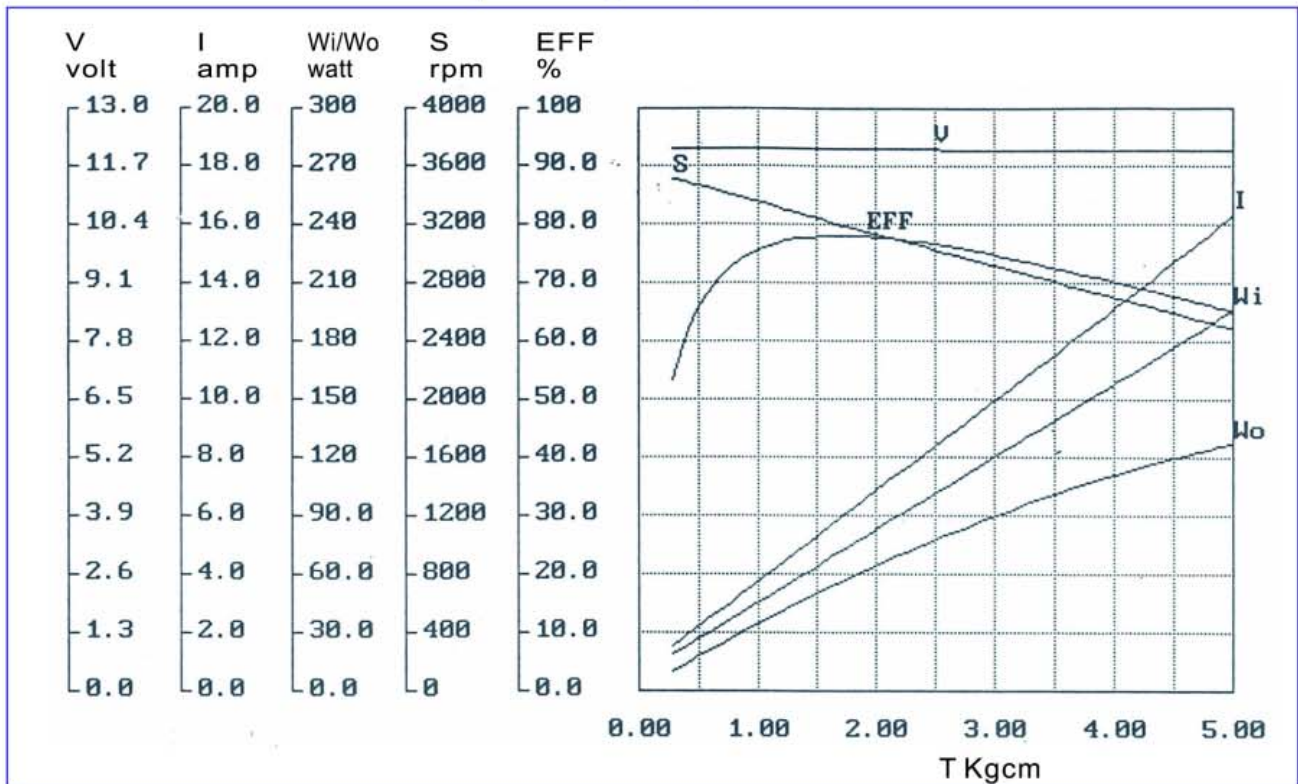
φ 80mm , 16-30 Ncm , 80W

Weight : 1.7 Kg/pcs

## KR7135



### 12VDC No Load 3500rpm Torque/Speed Performance Curve



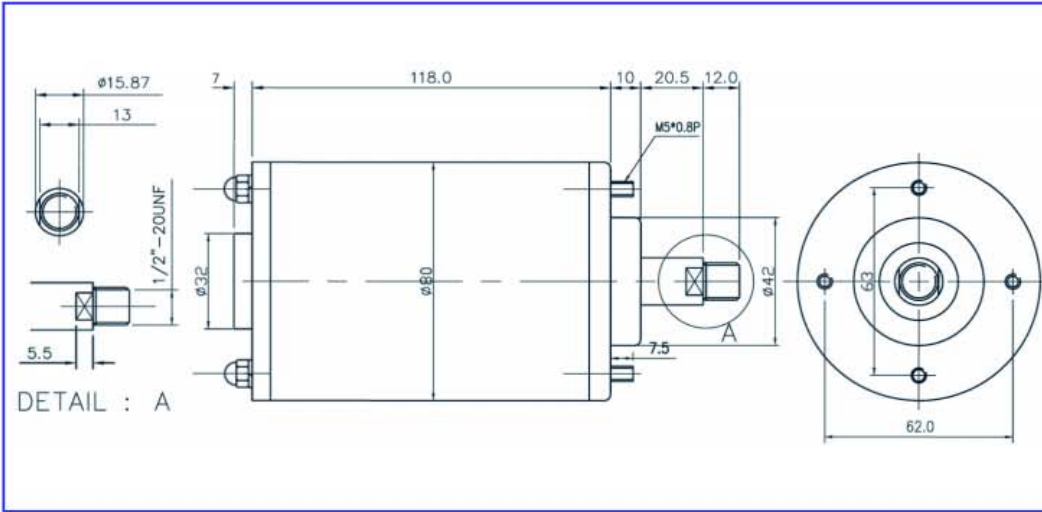
NO	R.P.M.	VOLT(V)	I (AMP)	INPUT(W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	3513	12.10	1.55	18.8	0.28	10.1	53.7
2	3356	12.10	3.69	44.6	0.97	33.4	74.9
3	3201	12.07	5.84	70.5	1.68	55.2	78.3
4	3050	12.07	8.03	96.9	2.38	74.5	76.9
5	2876	12.07	10.55	127.3	3.19	94.1	73.9
6	2726	12.04	12.75	153.5	3.89	108.8	70.9
7	2575	12.04	14.99	180.5	4.59	121.3	67.2
8	2419	12.04	17.28	208.1	5.31	131.8	63.3
9	2261	12.01	19.63	235.8	6.04	140.1	59.4



φ 80mm ,26-36 Ncm , 120W

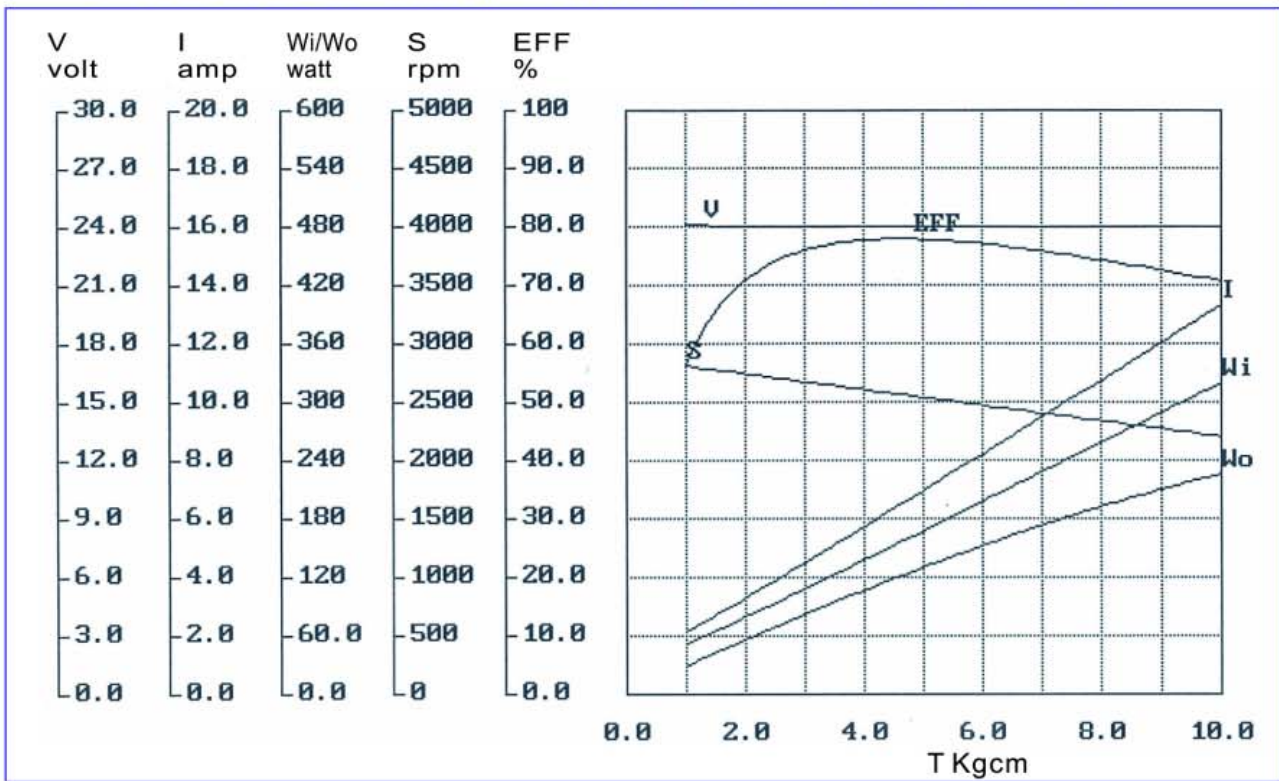
Weight : 2 Kg/pcs

## SM7152



N.W 2 KGS/PCS  
 12 PCS A CTN/N.W. 24 KGS  
 G.W. 26 KGS CFT. 1.8

### 24VDC No Load 3000rpm Torque/Speed Performance Curve

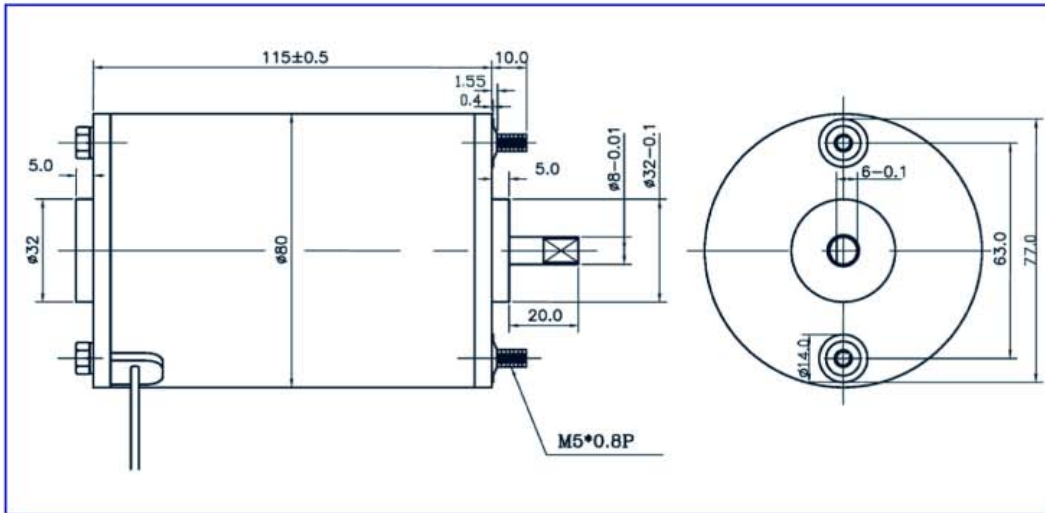


DC MOTOR

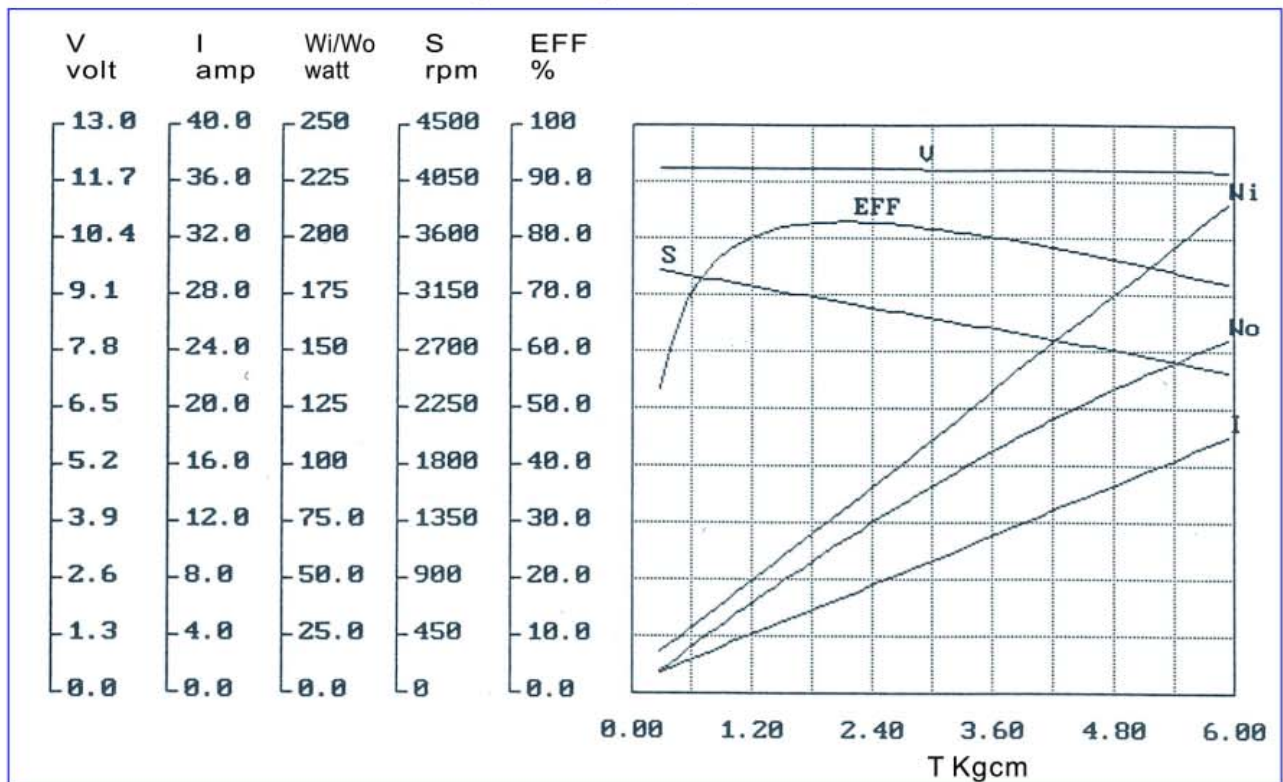
NO	R.P.M.	VOLT(V)	I(AMP)	INPUT(W)	TORQUE(KG-CM)	OUTPUT(W)	EFF(%)
1	2813	24.06	2.12	51.0	1.00	28.9	56.7
2	2735	24.03	3.44	82.7	2.10	58.9	71.2
3	2647	24.03	4.98	119.7	3.40	92.3	77.1
4	2572	24.04	6.30	151.5	4.50	118.7	78.3
5	2499	24.03	7.74	186.0	5.60	143.6	77.2
6	2421	24.01	9.16	219.9	6.70	166.4	75.7
7	2343	24.04	10.70	257.2	8.00	192.3	74.8
8	2268	24.03	12.16	292.2	9.10	211.8	72.5
9	2193	24.03	13.60	326.8	10.20	229.5	70.2

φ 80mm ,26-36 Ncm , 120W  
Weight : 2 Kg/pcs

KR7152



12VDC No Load 3400rpm Torque/Speed Performance Curve

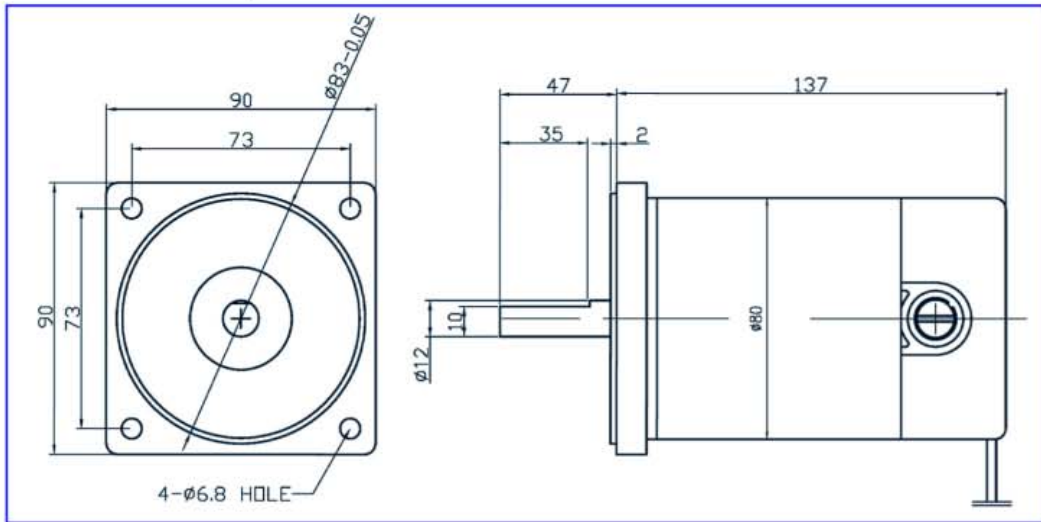


NO	R.P.M.	VOLT (V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	3345	12.01	1.48	17.8	0.28	9.6	53.9
2	3255	12.01	3.34	40.1	0.92	30.7	76.6
3	3153	11.99	5.42	65.0	1.64	53.1	81.7
4	3061	11.99	7.20	86.3	2.30	72.2	83.7
5	2944	11.99	9.76	117.0	3.15	95.1	81.3
6	2839	11.96	11.92	142.6	3.88	113.0	79.2
7	2736	11.95	14.06	168.0	4.61	129.4	77.0
8	2631	11.96	16.17	193.4	5.32	143.6	74.3
9	2527	11.93	18.31	218.4	6.03	156.3	71.6

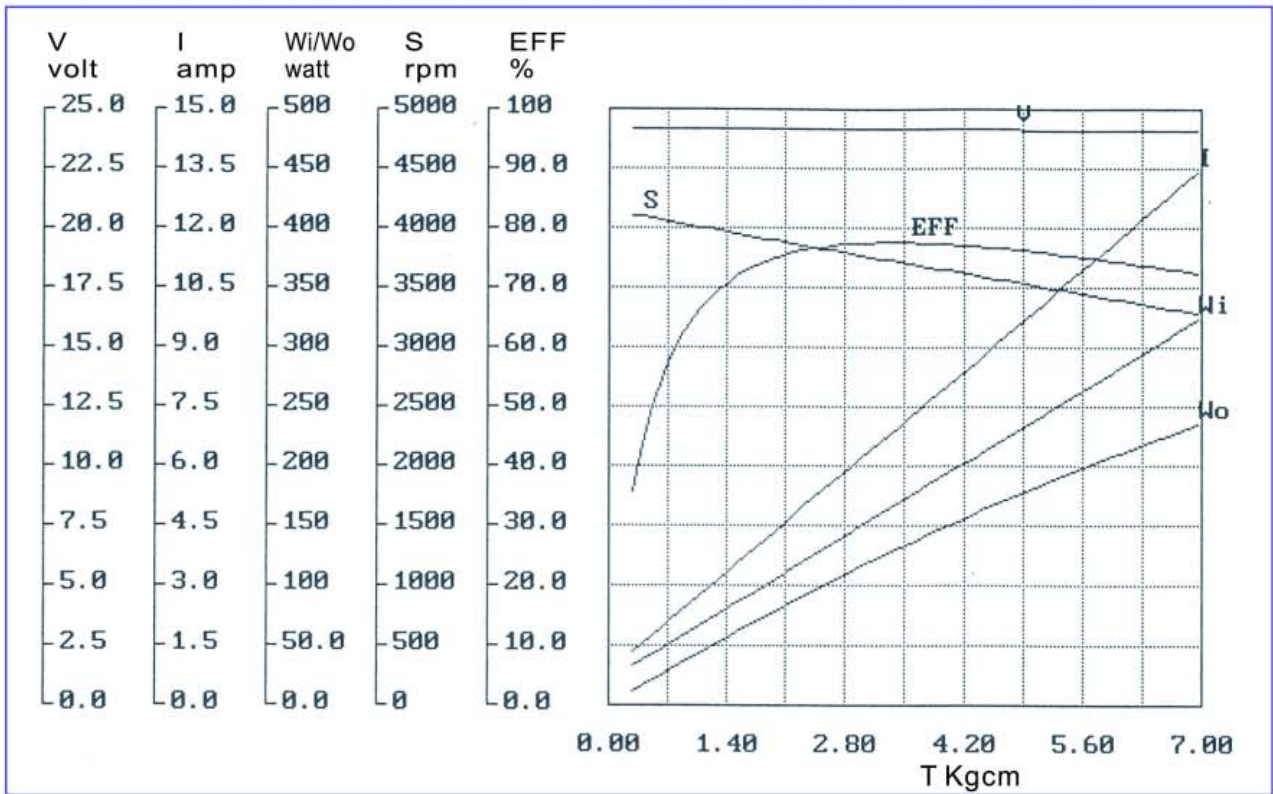
DC MOTOR

Φ 80mm ,26-36 Ncm , 120W  
 Weight : 2.4 Kg/pcs  
 With encoder/brake available  
 Front Cover : Square/Circle

F7147H



24VDC No Load 4100rpm Torque/Speed Performance Curve



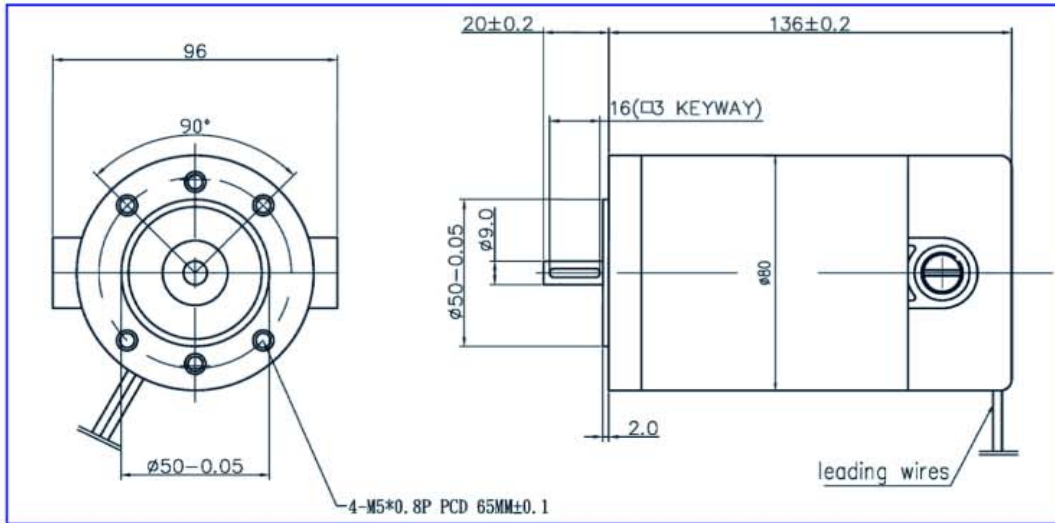
NO	R.P.M.	VOLT (V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	4105	24.18	1.37	33.1	0.28	11.8	35.6
2	4008	24.13	2.76	66.6	1.08	44.4	66.7
3	3893	24.15	4.38	105.8	1.99	79.5	75.1
4	3791	24.15	5.86	141.5	2.80	108.9	77.0
5	3679	24.12	7.52	181.4	3.72	140.4	77.4
6	3581	24.12	8.99	216.8	4.53	166.4	76.8
7	3479	24.12	10.48	252.8	5.35	191.0	75.6
8	3370	24.12	12.14	292.8	6.26	216.4	73.9
9	3268	24.09	13.63	328.3	7.07	237.1	72.2

DC MOTOR

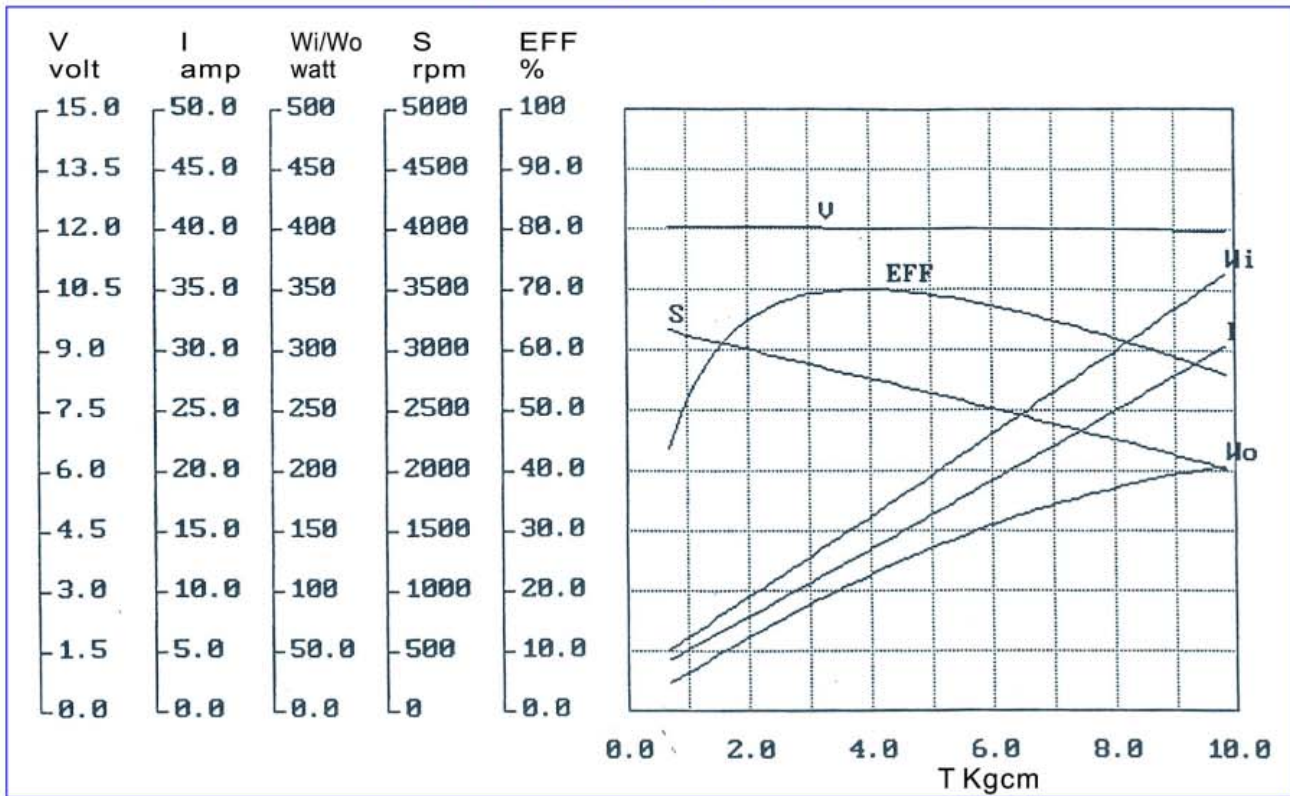


$\phi$  80mm ,30-55 Ncm , 150W  
 Weight : 2.4 Kg/pcs  
 With encoder/brake available  
 Front Cover : Square/Circle

## M7152H



### 24VDC No Load 3200rpm Torque/Speed Performance Curve

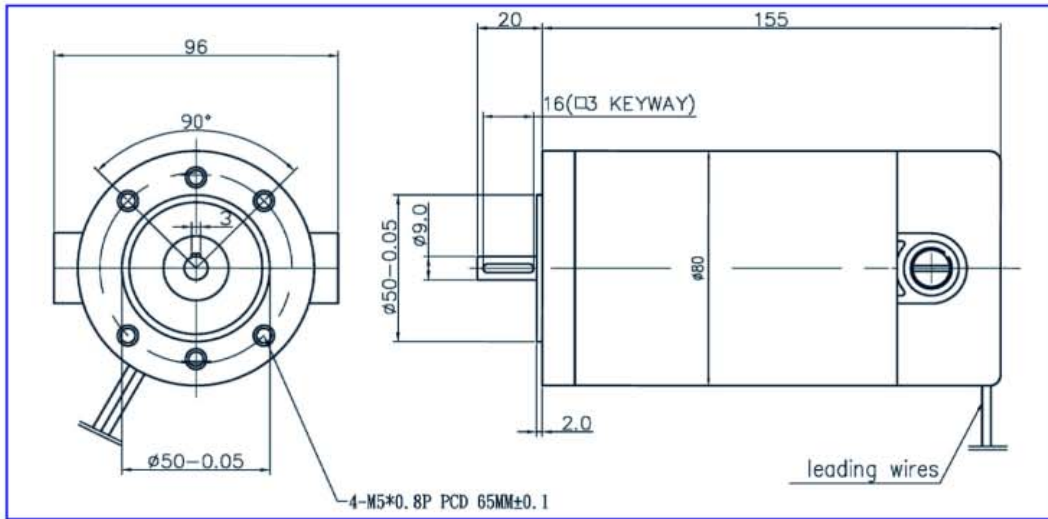


NO	R.P.M.	VOLT(V)	I(AMP)	INPUT(W)	TORQUE (KG-CM)	OUTPUT(W)	EFF (%)
1	3152	12.07	4.42	53.3	0.70	22.7	42.6
2	3033	12.04	7.17	86.3	1.80	56.0	64.9
3	2897	12.04	10.35	124.6	2.90	86.2	69.2
4	2779	12.02	13.24	159.1	3.90	111.0	69.8
5	2649	12.01	16.06	192.9	4.90	133.2	69.1
6	2530	11.99	18.71	224.3	5.80	150.6	67.1
7	2333	11.99	23.55	282.4	7.50	179.5	63.6
8	2216	11.99	25.97	311.4	8.40	191.0	61.3
9	1995	11.96	30.92	369.8	10.00	204.7	55.4

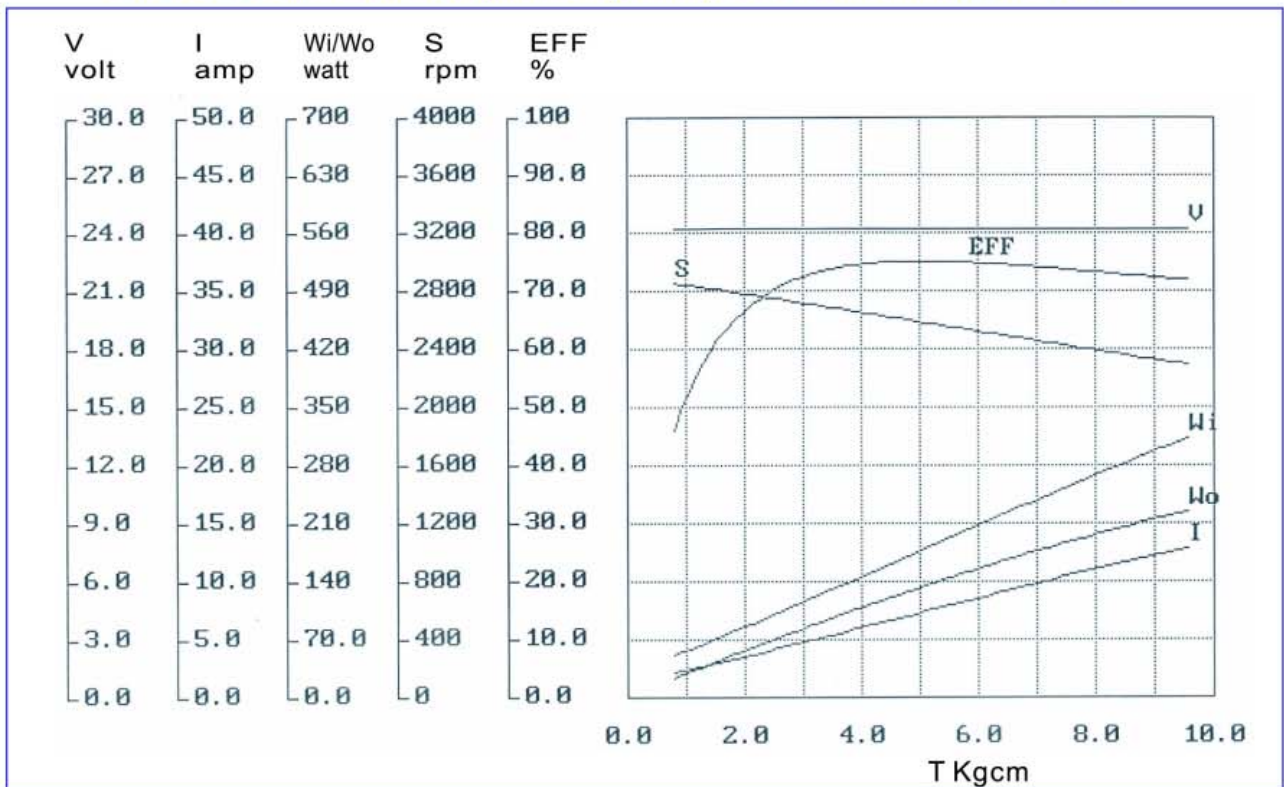


Φ 80mm ,30-60 Ncm , 200W  
 Weight : 2.5 Kg/pcs  
 With encoder/brake available  
 Front Cover : Square/Circle

M7165



24VDC No Load 2900rpm Torque/Speed Performance Curve



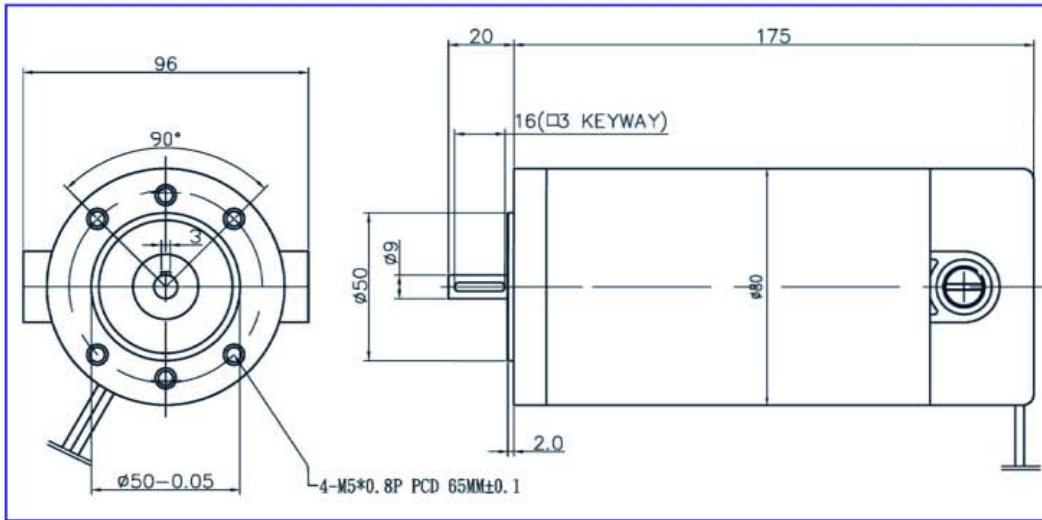
NO	R.P.M.	VOLT(V)	I(AMP)	INPUT(W)	TORQUE(KG-CM)	OUTPUT(W)	EFF(%)
1	2852	24.18	2.11	51.0	0.80	23.4	45.9
2	2789	24.13	3.39	81.8	1.90	54.4	66.5
3	2699	24.15	4.98	120.3	3.10	85.8	71.3
4	2636	24.23	6.36	154.1	4.30	116.3	75.5
5	2563	24.21	7.77	188.1	5.40	142.0	75.5
6	2489	24.21	9.23	223.5	6.50	166.0	74.3
7	2407	24.21	10.74	260.0	7.70	190.2	73.2
8	2335	24.20	12.09	292.6	8.90	213.2	72.9
9	2283	24.23	13.10	317.4	9.70	227.2	71.6

DC MOTOR

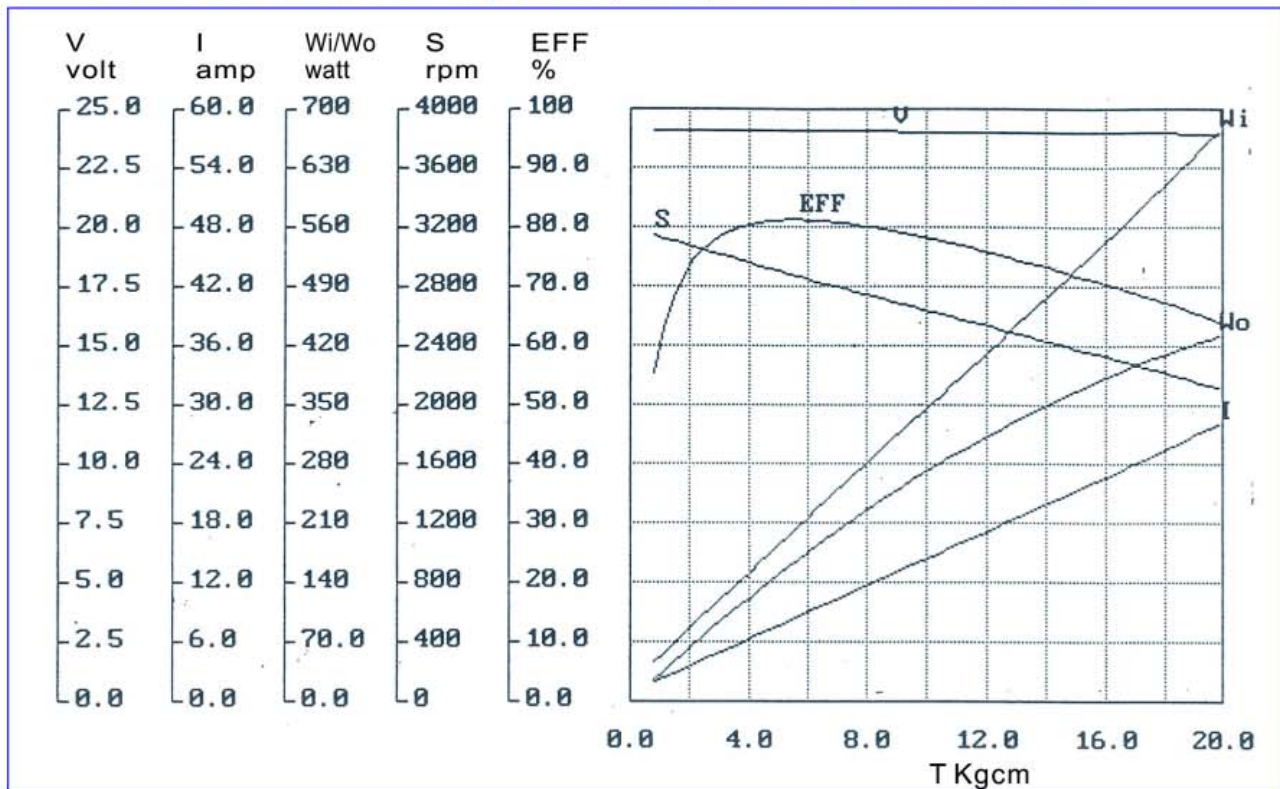


$\phi$  80mm ,40-75 Ncm , 230W  
 Weight : 2.8 Kg/pcs  
 With encoder/brake available  
 Front Cover : Square/Circle

## M7185



### 24VDC No Load 3200rpm Torque/Speed Performance Curve

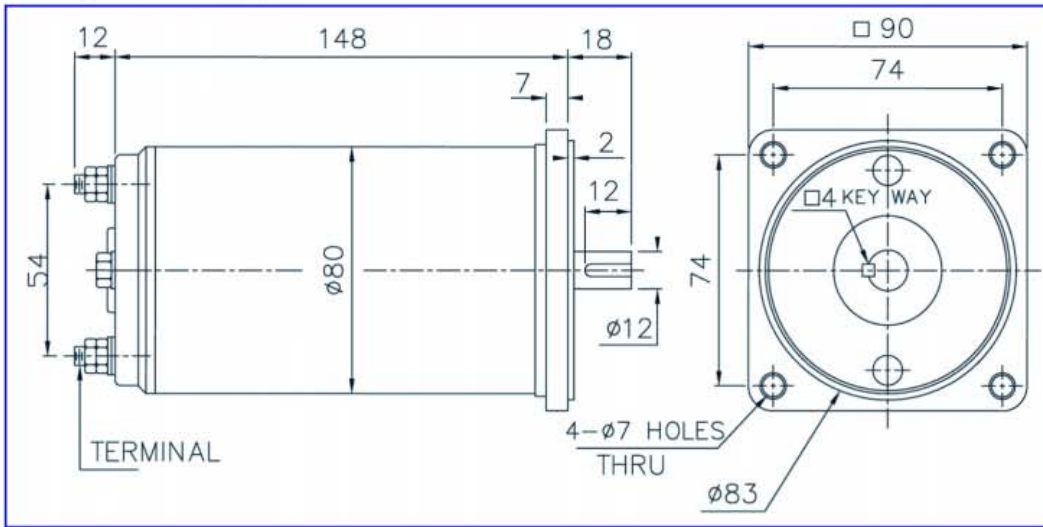


DC MOTOR

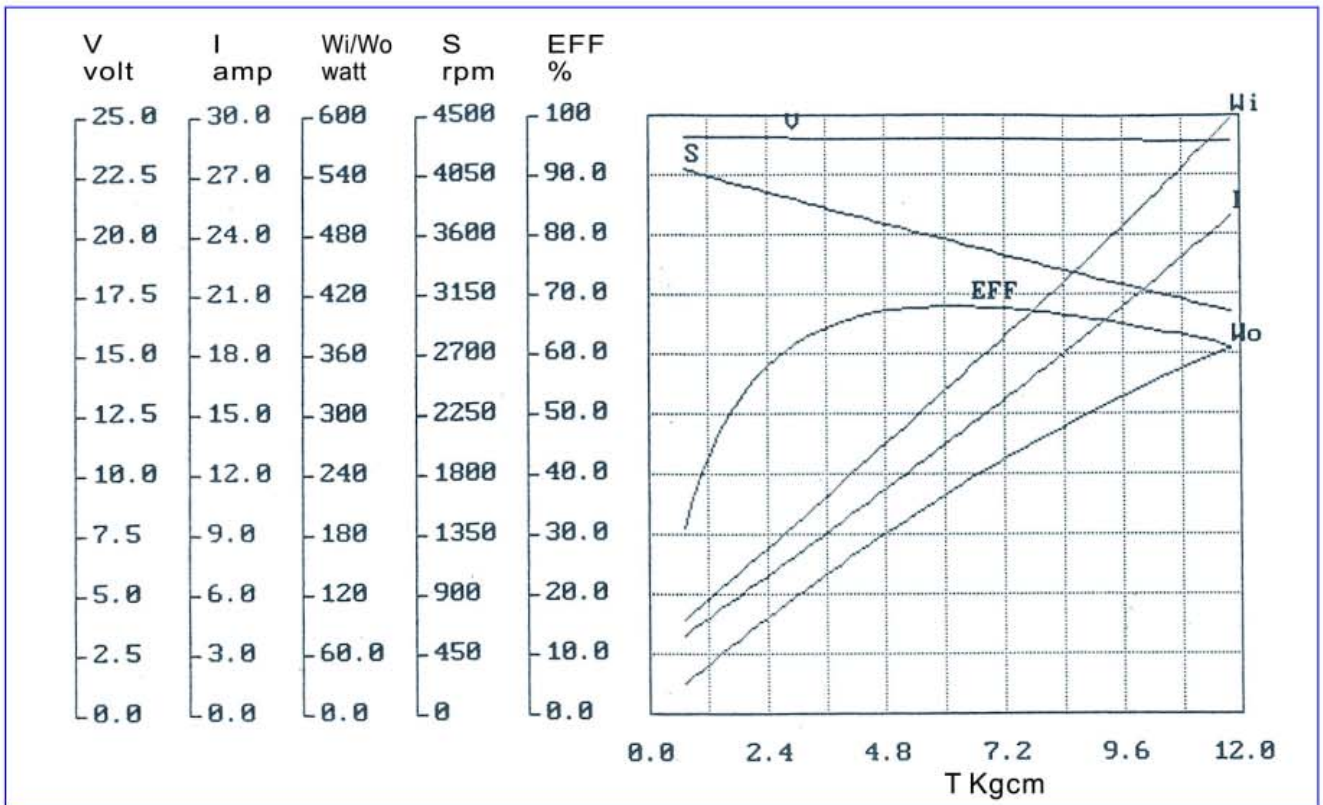
NO	R.P.M.	VOLT(V)	I(AMP)	INPUT(W)	TORQUE(KG-CM)	OUTPUT(W)	EFF(%)
1	3146	24.09	1.93	46.5	0.80	25.8	55.5
2	3003	24.10	5.20	125.3	3.20	98.6	78.7
3	2867	24.06	8.53	205.2	5.70	167.7	81.7
4	2741	24.06	11.74	282.5	8.00	225.0	79.6
5	2614	24.03	15.09	362.6	10.50	281.6	77.7
6	2486	24.00	18.45	442.8	13.00	331.6	74.9
7	2356	23.97	21.86	524.0	15.40	372.3	71.0
8	2232	23.97	25.14	602.6	17.80	407.6	67.6
9	2096	23.95	28.54	683.5	20.20	434.4	63.6

φ 80mm ,45-80 Ncm , 250W  
Weight : 2.6 Kg/pcs

MT7255-2



24VDC No Load 4100rpm Torque/Speed Performance Curve



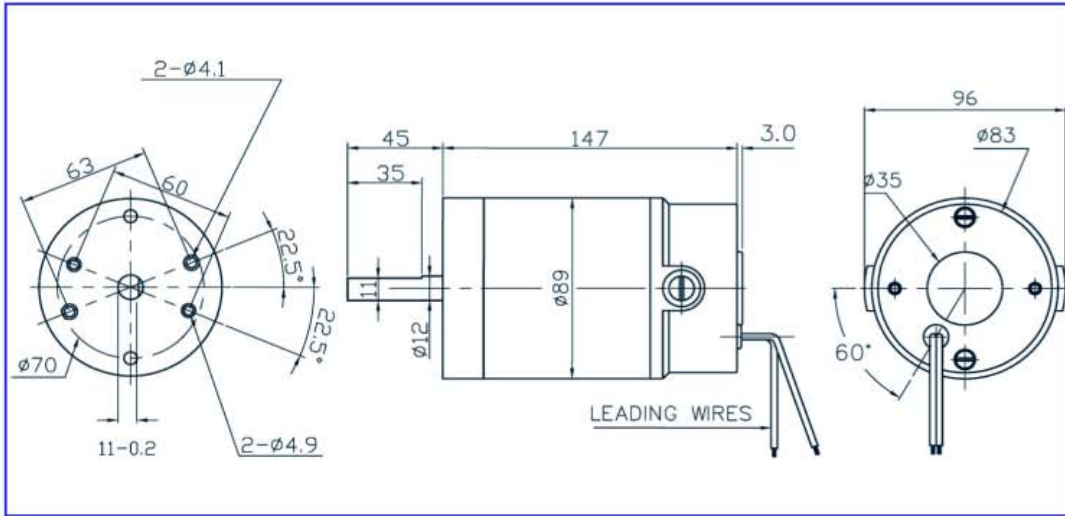
NO	R.P.M.	VOLT(V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	4092	24.08	3.99	96.1	0.70	29.4	30.6
2	3945	24.06	6.47	155.7	2.20	89.0	57.2
3	3799	24.03	9.08	218.2	3.60	140.3	64.3
4	3667	24.01	11.49	275.9	4.90	184.4	66.8
5	3525	24.00	14.16	339.8	6.40	231.5	68.1
6	3387	24.00	16.96	407.0	7.80	271.1	66.6
7	3252	23.97	19.70	472.2	9.30	310.3	65.7
8	3125	23.94	22.38	535.8	10.60	339.9	63.4
9	2990	23.92	25.37	606.9	12.00	368.1	60.7

DC MOTOR

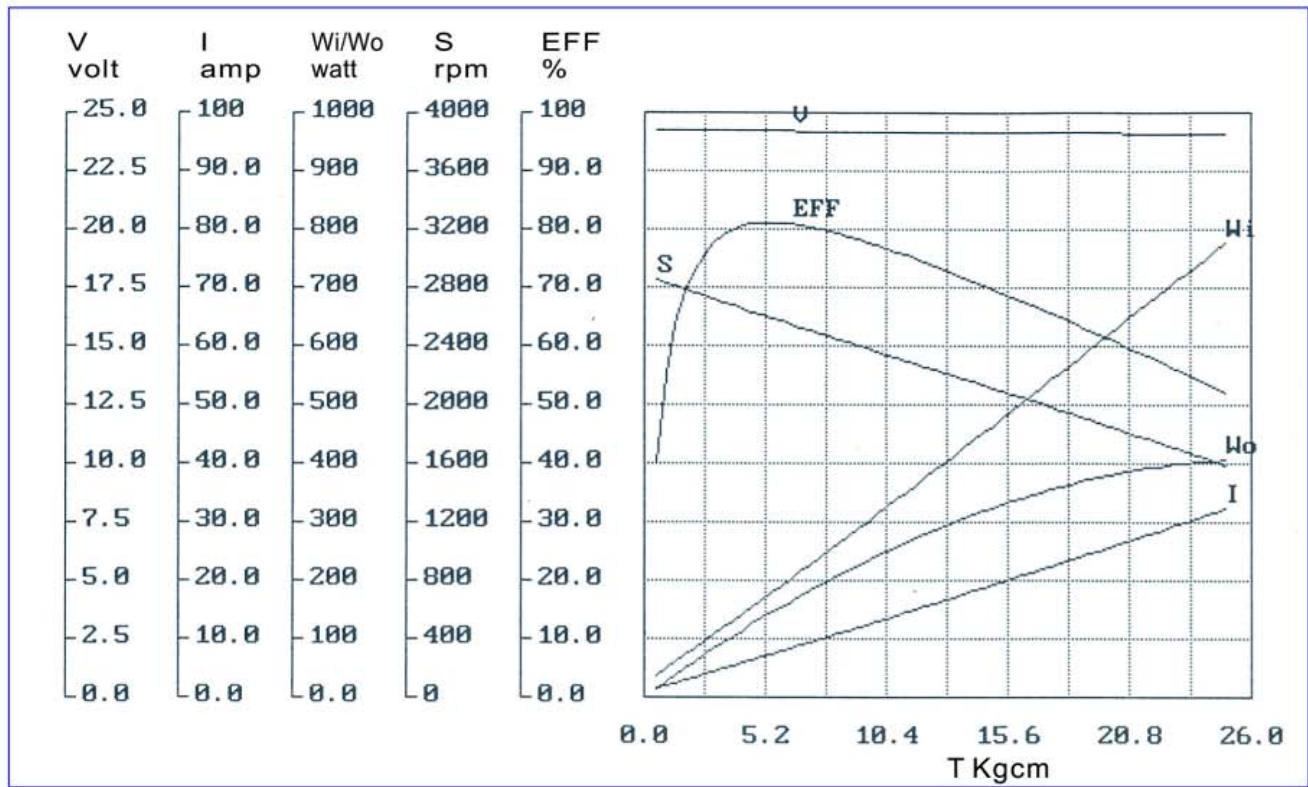


φ 89mm ,45-80 Ncm , 250W  
 Weight : 2.6 Kg/pcs  
 With brake available

M8156



24VDC No Load 2800rpm Torque/Speed Performance Curve

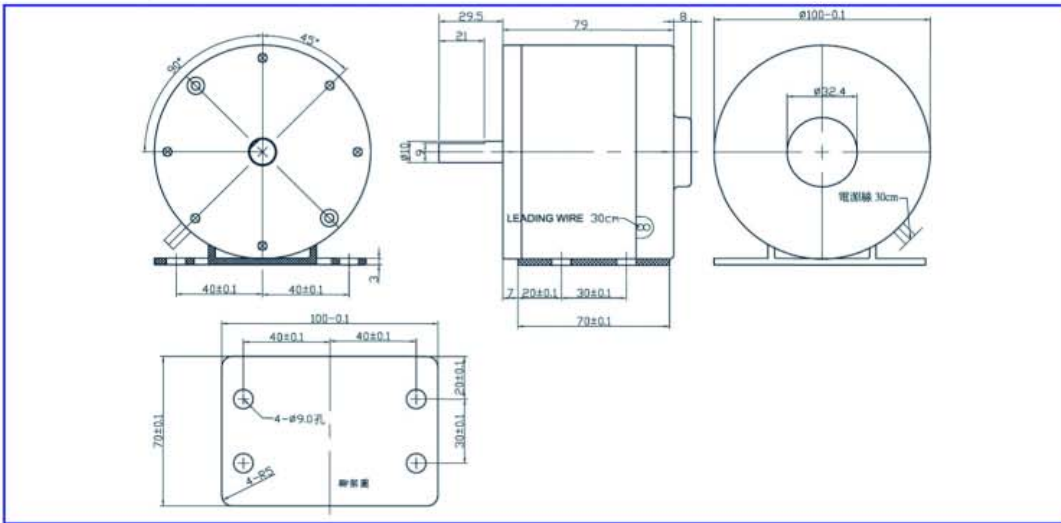


NO	R.P.M.	VOLT(V)	I(AMP)	INPUT(W)	TORQUE(KG-CM)	OUTPUT(W)	EFF(%)
1	2854	24.25	1.46	35.4	0.50	14.6	41.2
2	2677	24.23	5.54	134.2	3.80	104.4	77.8
3	2495	24.21	9.52	230.5	7.30	186.9	81.0
4	2292	24.17	14.68	354.8	11.40	268.1	75.6
5	2117	24.15	19.12	461.7	14.90	323.6	70.1
6	2117	24.17	19.03	460.0	14.80	321.5	69.9
7	1957	24.15	23.28	562.2	18.00	361.4	64.3
8	1771	24.12	27.84	671.5	21.60	392.5	58.5
9	1563	24.07	32.86	790.9	25.30	405.7	51.3

DC MOTOR

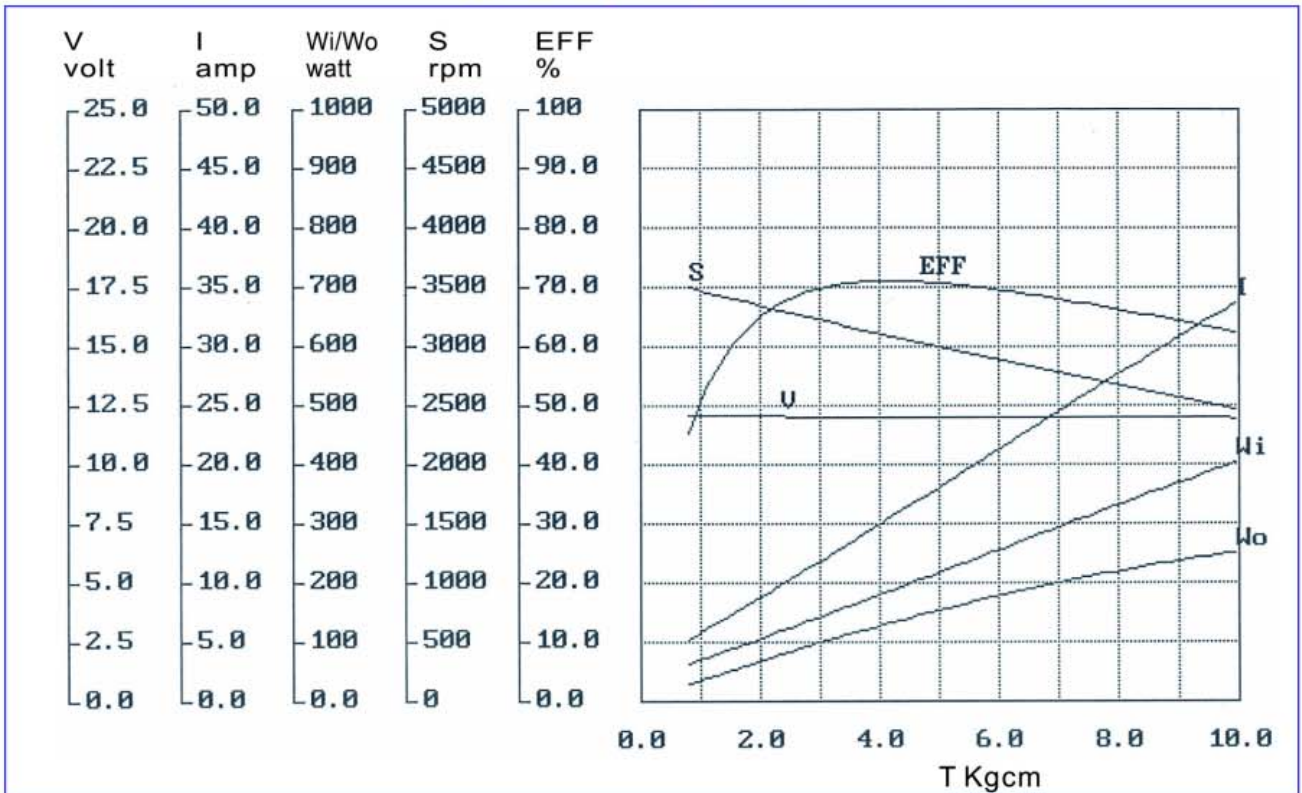
φ 100mm ,40-60 Ncm , 150W  
 Weight : 2 Kg/pcs  
 Stand : Option

M9480T



N.W 2 KGS/PCS  
 12 PCS A CTN/N.W. 24 KGS  
 G.W. 25 KGS CFT. 1.8

12VDC No Load 3600rpm Torque/Speed Performance Curve



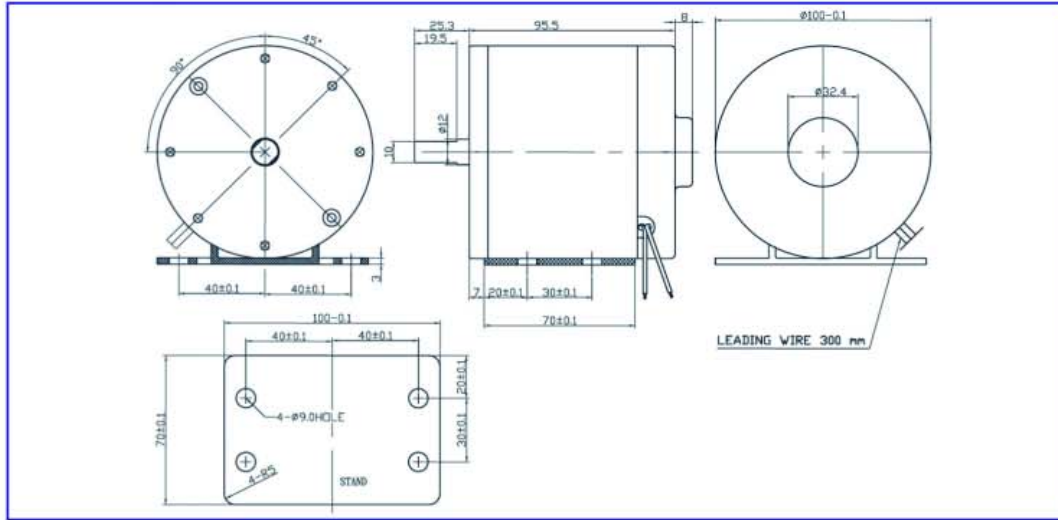
1	3497	12.07	5.29	63.9	0.80	28.7	44.9
2	3350	12.07	8.67	104.6	2.00	68.7	65.7
3	3199	12.01	12.42	149.2	3.20	105.0	70.4
4	3077	12.01	15.97	191.8	4.30	135.8	70.8
5	2949	12.01	19.52	234.4	5.40	163.4	69.7
6	2828	12.01	23.09	277.3	6.60	191.5	69.1
7	2701	11.99	26.95	323.1	7.80	216.2	66.9
8	2571	11.96	30.56	365.5	8.90	234.8	64.2
9	2449	11.96	34.15	408.4	10.10	253.8	62.1

DC MOTOR

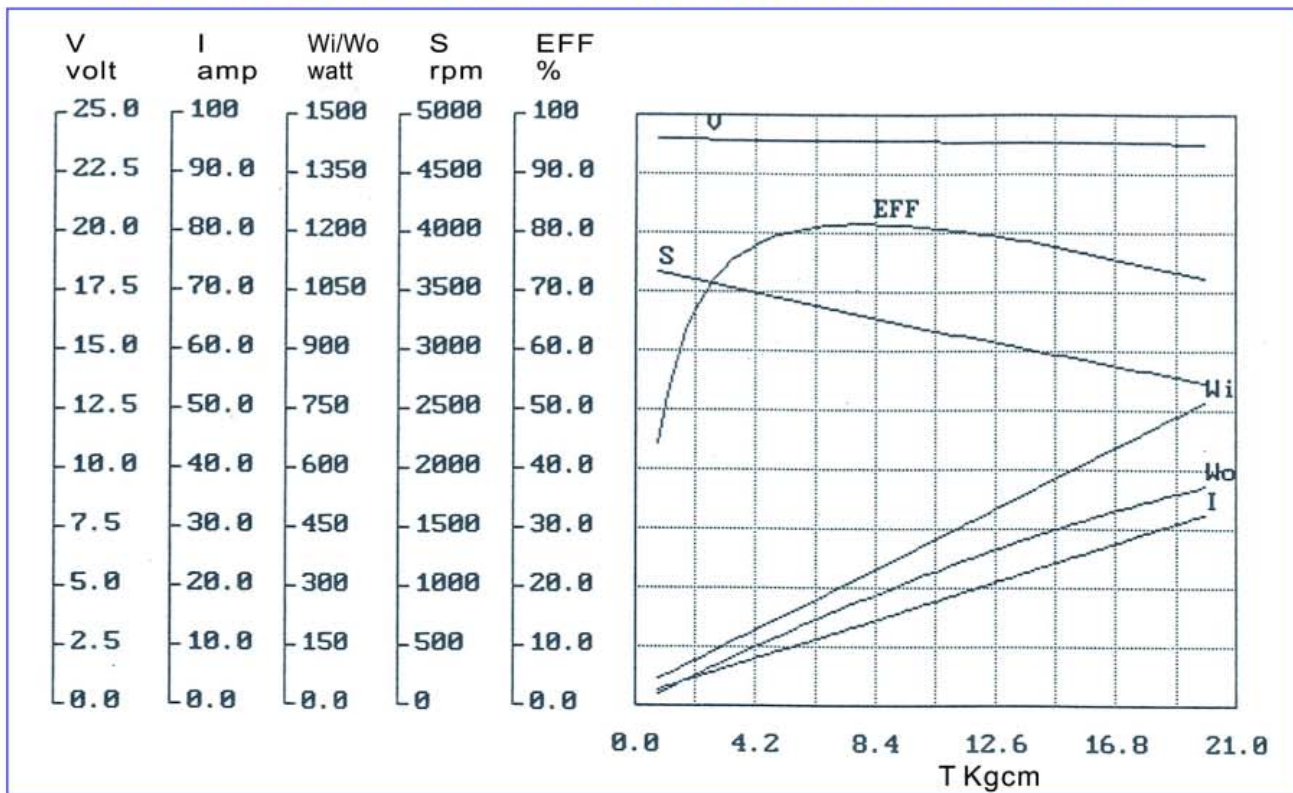


φ 100mm , 50-90 Ncm , 300W  
 Weight : 2.3 Kg/pcs  
 Stand : Option

## M9480LT



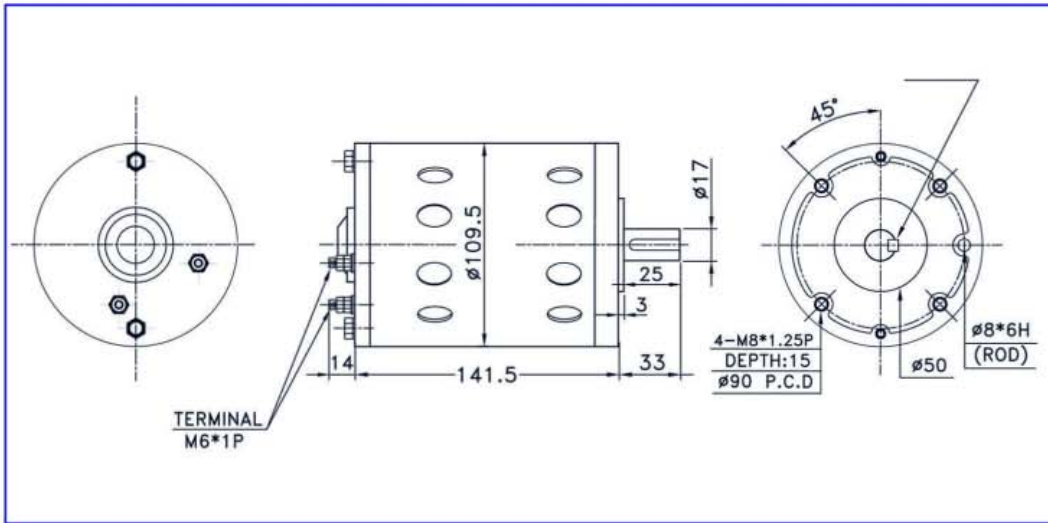
### 24VDC No Load 3700rpm Torque/Speed Performance Curve



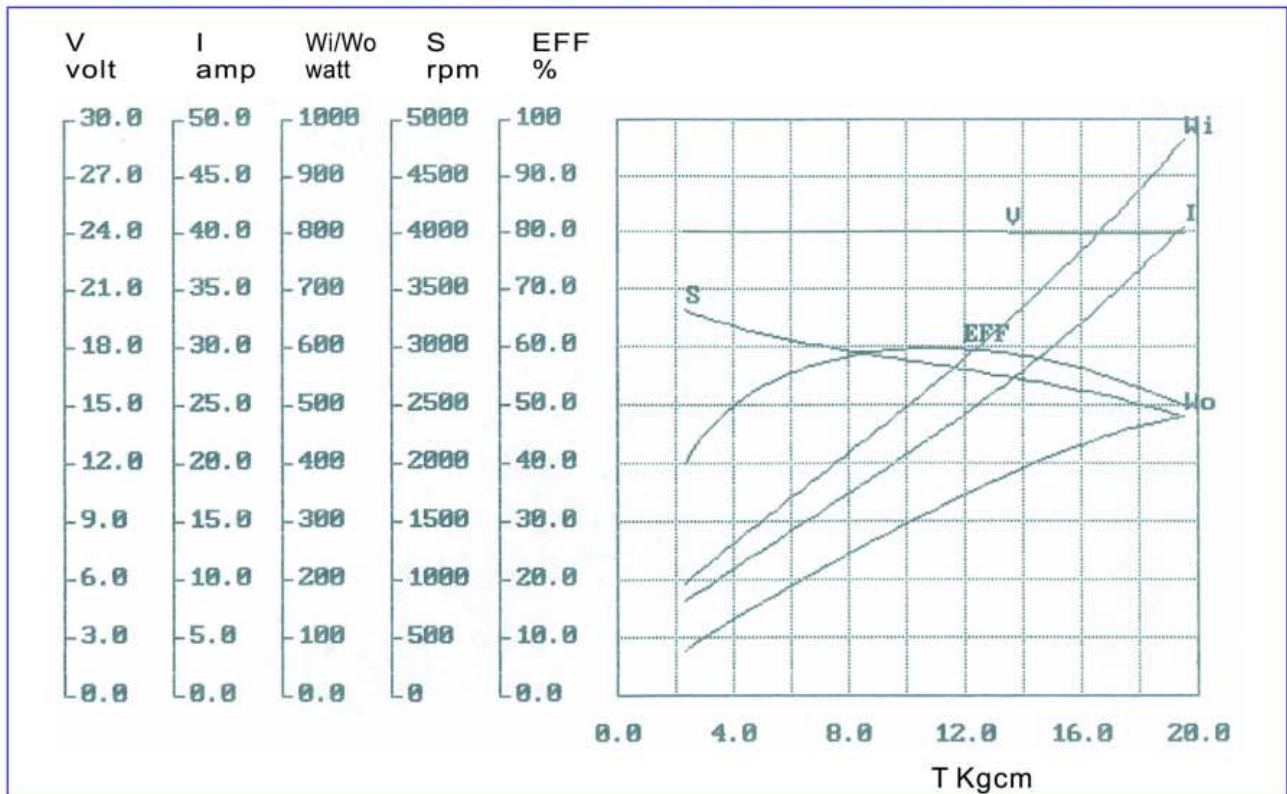
NO	R.P.M.	VOLT (V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	3660	23.97	2.86	68.6	0.80	30.0	43.7
2	3533	23.95	6.59	157.8	3.30	119.6	75.8
3	3405	23.94	10.40	249.0	5.70	199.1	80.0
4	3290	23.89	13.99	334.2	8.10	273.4	81.8
5	3171	23.88	17.74	423.6	10.50	341.6	80.6
6	3057	23.84	21.45	511.4	12.90	404.6	79.1
7	2948	23.82	25.20	600.3	15.30	462.8	77.1
8	2838	23.82	28.91	688.6	17.70	515.4	74.8
9	2720	23.77	33.02	784.9	20.20	563.7	71.8

φ 109.5mm ,80-140 Ncm , 350W  
Weight : 3.8 Kg/pcs

M1080



24VDC No Load 3500rpm Torque/Speed Performance Curve



NO	R.P.M.	VOLT(V)	I (AMP)	INPUT(W)	TORQUE(KG-CM)	OUTPUT(W)	EFF(%)
1	3307	24.03	8.01	192.5	2.30	78.0	40.5
2	3180	24.03	11.08	266.3	4.10	133.8	50.2
3	3068	24.02	13.85	332.7	5.80	182.6	54.9
4	2967	24.00	16.93	406.3	7.60	231.4	57.0
5	2903	24.00	19.65	471.6	9.30	277.0	58.7
6	2840	24.00	22.49	539.8	11.10	323.4	59.9
7	2778	23.95	25.24	604.5	12.80	364.8	60.3
8	2713	23.95	28.11	673.2	14.50	403.6	60.0
9	2588	23.91	32.54	778.0	16.30	432.8	55.6
10	2606	23.89	34.02	812.7	16.30	435.8	53.6
11	2384	23.85	40.90	975.5	19.80	484.3	49.6

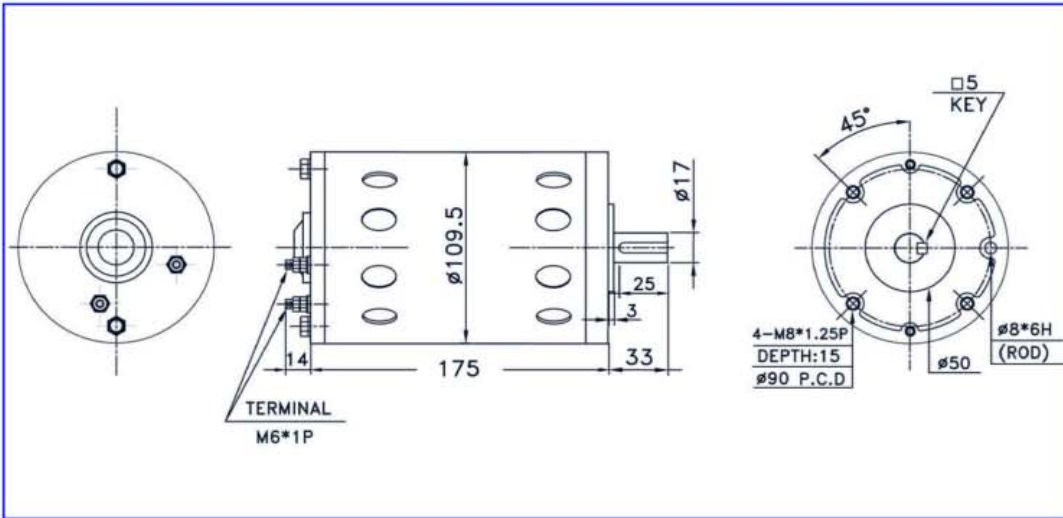
DC MOTOR



φ 109.5mm ,90-160 Ncm , 500W

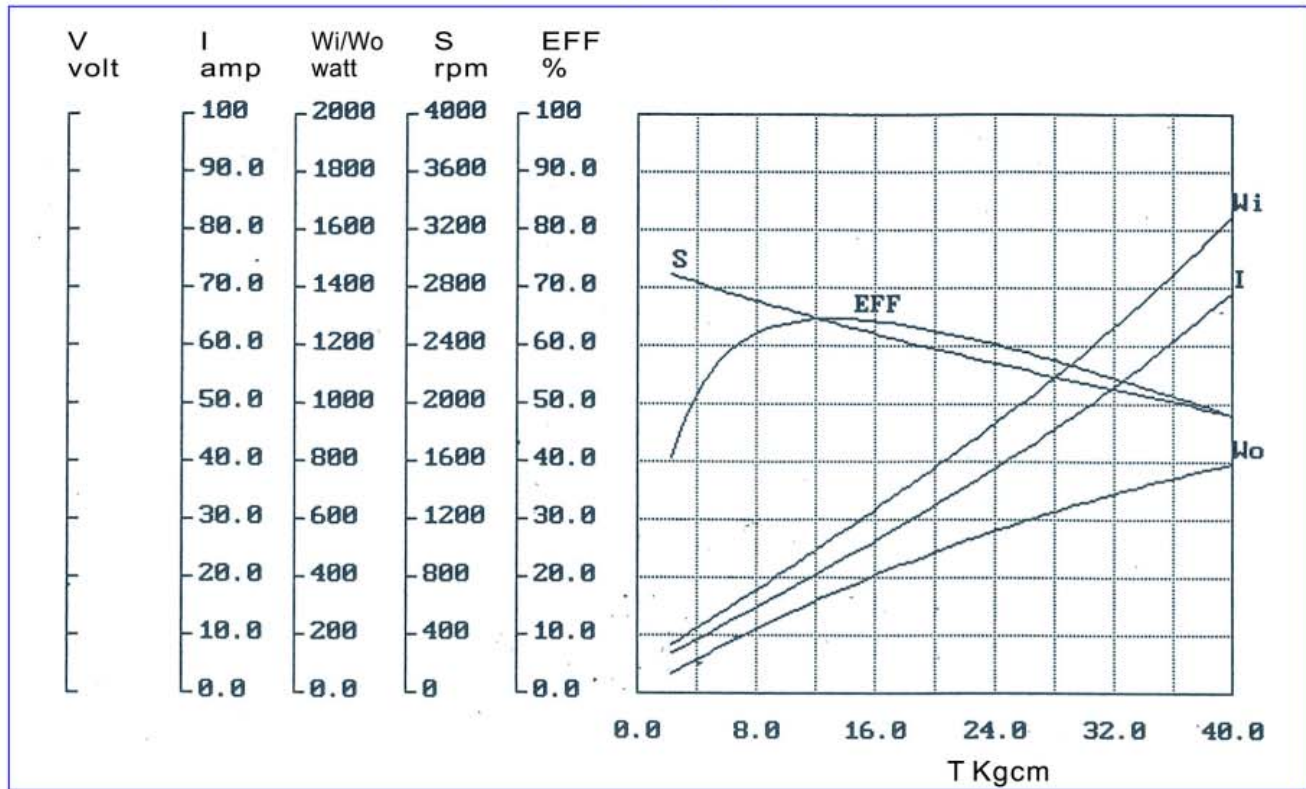
Weight : 5 Kg/pcs

## M1084



N.W 5 KGS/PCS  
 6 PCS A CTN/N.W.30 KGS  
 G.W.31 KGS CFT.1.7

### 24VDC No Load 3000rpm Torque/Speed Performance Curve



NO	R.P.M.	VOLT (V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	2886	24.18	6.86	165.9	2.30	68.1	41.0
2	2739	24.14	13.67	330.0	7.20	202.3	61.3
3	2595	24.09	20.80	501.1	12.00	319.5	63.8
4	2453	24.04	27.77	667.6	16.80	422.8	63.3
5	2335	24.03	34.58	831.0	21.60	517.5	62.3
6	2230	23.97	42.60	1021.1	26.40	604.0	59.2
7	2123	23.90	51.63	1234.0	31.30	681.8	55.3
8	2011	23.84	61.57	1467.8	36.10	744.8	50.7
9	1911	23.79	70.75	1683.1	40.90	801.9	47.6



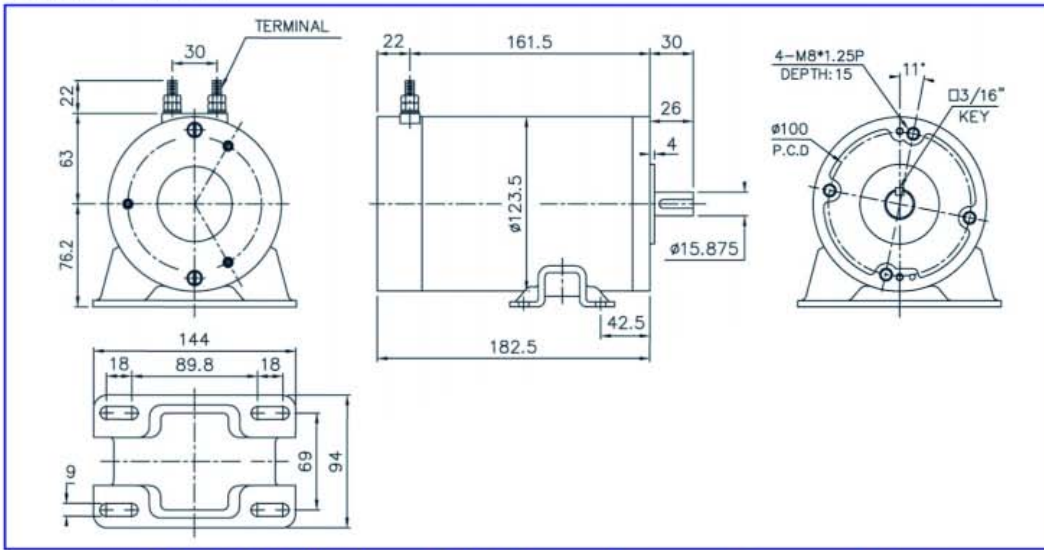


φ 123.5mm , 120-200 Ncm , 700W

Weight : 7.5 Kg/pcs

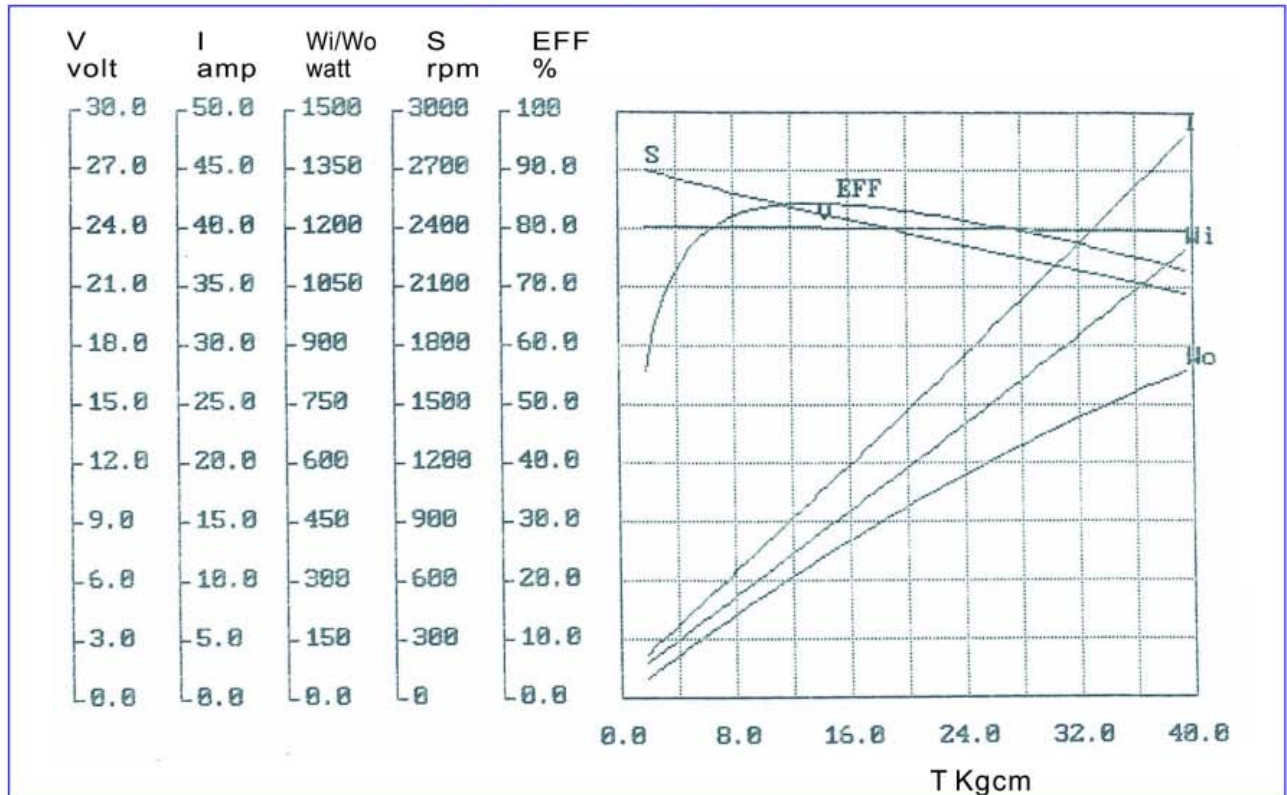
Stand : Option

## M1188R



N.W 7.5 KGS/PCS  
4 PCS A CTN/N.W. 26KGS  
G.W. 27KGS CFT. 1.2

### 24VDC No Load 2800rpm Torque/Speed Performance Curve



NO	R.P.M.	VOLT(V)	I (AMP)	INPUT(W)	TORQUE (KG-CM)	OUTPUT(W)	EFF (%)
1	2700	24.12	3.70	89.2	1.80	49.9	55.9
2	2580	24.09	11.20	269.8	8.40	222.4	82.4
3	2507	24.08	15.78	380.0	12.40	319.0	83.9
4	2442	24.03	20.15	484.2	16.30	408.4	84.3
5	2373	24.00	24.93	598.3	20.40	496.7	83.0
6	2307	23.98	29.56	708.8	24.30	575.2	81.2
7	2246	23.95	34.04	815.3	28.20	649.8	79.7
8	2182	23.94	39.04	934.6	32.20	720.9	77.1
9	2118	23.91	43.88	1049.2	36.20	786.7	75.0
10	2055	23.87	48.69	1162.2	40.10	845.5	72.7

DC MOTOR

# PLANETARY GEARED MOTOR

The principle is based on a simple planetary gear, driven by a sun gear. The ring gear serves as the fixed link, the vertical plate as output. Planetary gears are characterised by their symmetrical form and their coaxial motor and output shafts.

We offer 5 different sizes of planetary gear units, which differ in diameter and torque.

The feature of PLANETARY GEARBOX is  
HIGH degree of EFFICIENCY,  
LONG LIFETIME,  
Highest reliability and HIGH reserves in TORQUE CAPACITY,  
with almost 200 optional gear ratio variants.

PT3928



$\phi$  43.5mm

Torque up to 4 Nm  
Ratio (1/i) : 1/4 - 1/864

PT3929



$\phi$  43mm

Torque up to 4 Nm  
Ratio (1/i) : 1/4 - 1/864

PTC3929



$\phi$  43mm

Torque up to 4 Nm  
Ratio (1/i) : 1/4 - 1/864

PT4835



$\phi$  54mm

Torque up to 30 Nm  
Ratio (1/i) : 1/4.5 - 1/313

PT5946



$\phi$  65mm

Torque up to 30 Nm  
Ratio (1/i) : 1/4.5 - 1/313

PT7152



$\phi$  80mm

Torque up to 40 Nm  
Ratio (1/i) : 1/6 - 1/1000

PTC7152



$\phi$  80mm

Torque up to 40 Nm  
Ratio (1/i) : 1/4 - 1/313

PT1188



$\phi$  123.5mm

Torque up to 50 Nm  
Ratio (1/i) : 1/7.5 , 1/10

If you are not aware of how to calculate the maximum output moment, please contact us.

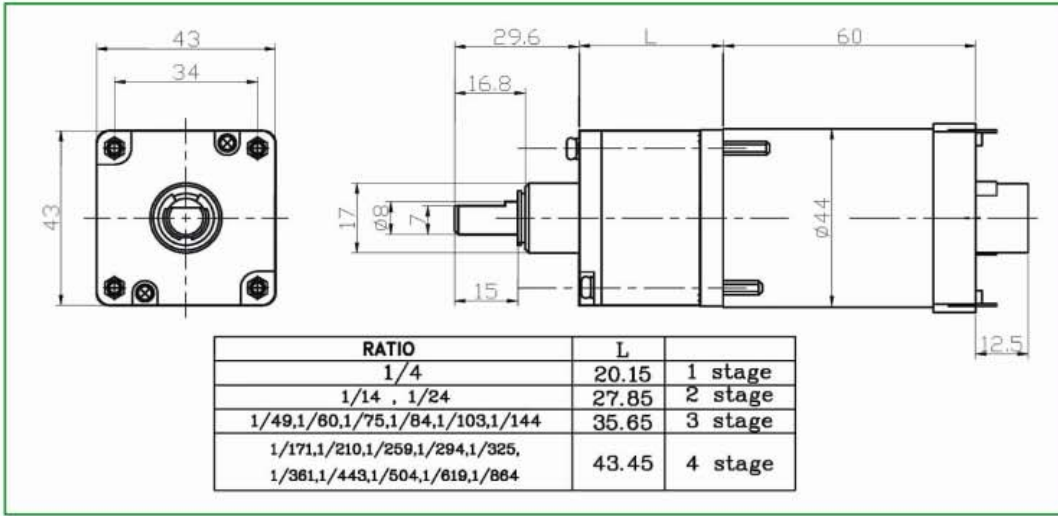


φ 43.5mm

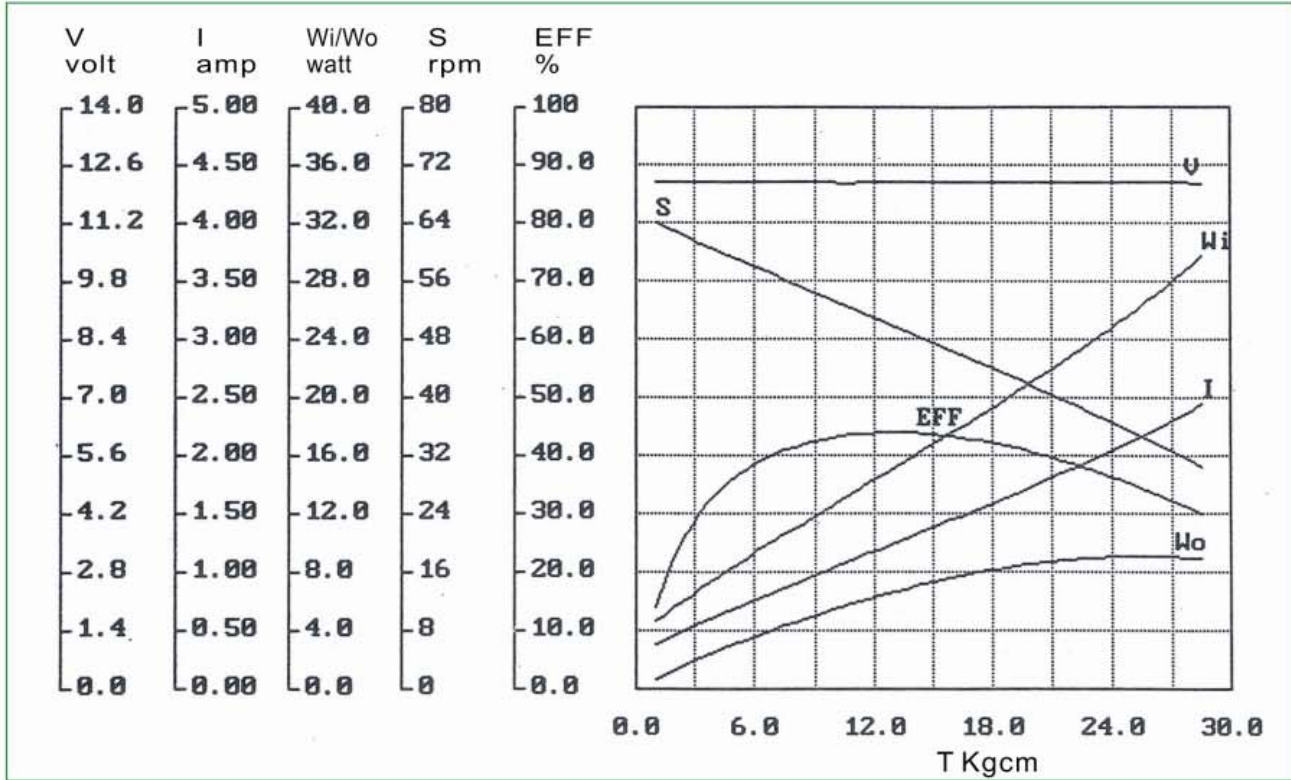
Recommended initial speed : 3,600rpm

Reduction Ratio (1/i) : 1/4 - 1/864

## PT3928



### 12VDC No Load 65rpm (RATIO : 1/49) Torque/Speed Performance Curve



NO	R.P.M.	VOLT (V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	64	12.17	0.39	4.7	1.00	0.7	14.9
2	61	12.16	0.57	6.9	3.50	2.2	31.9
3	54	12.16	0.98	11.9	9.20	5.1	42.9
4	50	12.15	1.26	15.3	13.20	6.8	44.4
5	49	12.16	1.33	16.2	14.20	7.1	43.8
6	46	12.16	1.40	17.0	15.30	7.2	42.4
7	44	12.16	1.61	19.6	18.30	8.3	42.3
8	42	12.16	1.68	20.4	19.40	8.4	41.2
9	42	12.16	1.77	21.5	20.40	8.8	40.9
10	40	12.16	1.85	22.5	21.40	8.8	39.1
11	38	12.16	1.91	23.2	22.40	8.7	37.5
12	37	12.16	1.99	24.2	23.40	8.9	36.8
13	36	12.16	2.11	25.7	24.90	9.2	35.8
14	31	12.15	2.34	28.4	27.90	8.9	31.3
15	30	12.16	2.53	30.8	29.00	8.9	28.9



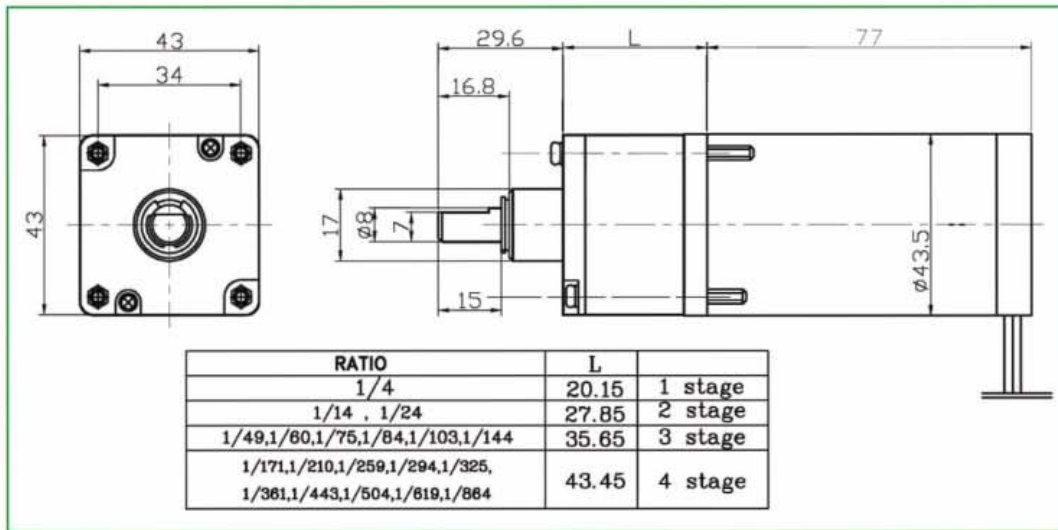
φ 43mm

Recommended initial speed : 3,600 rpm

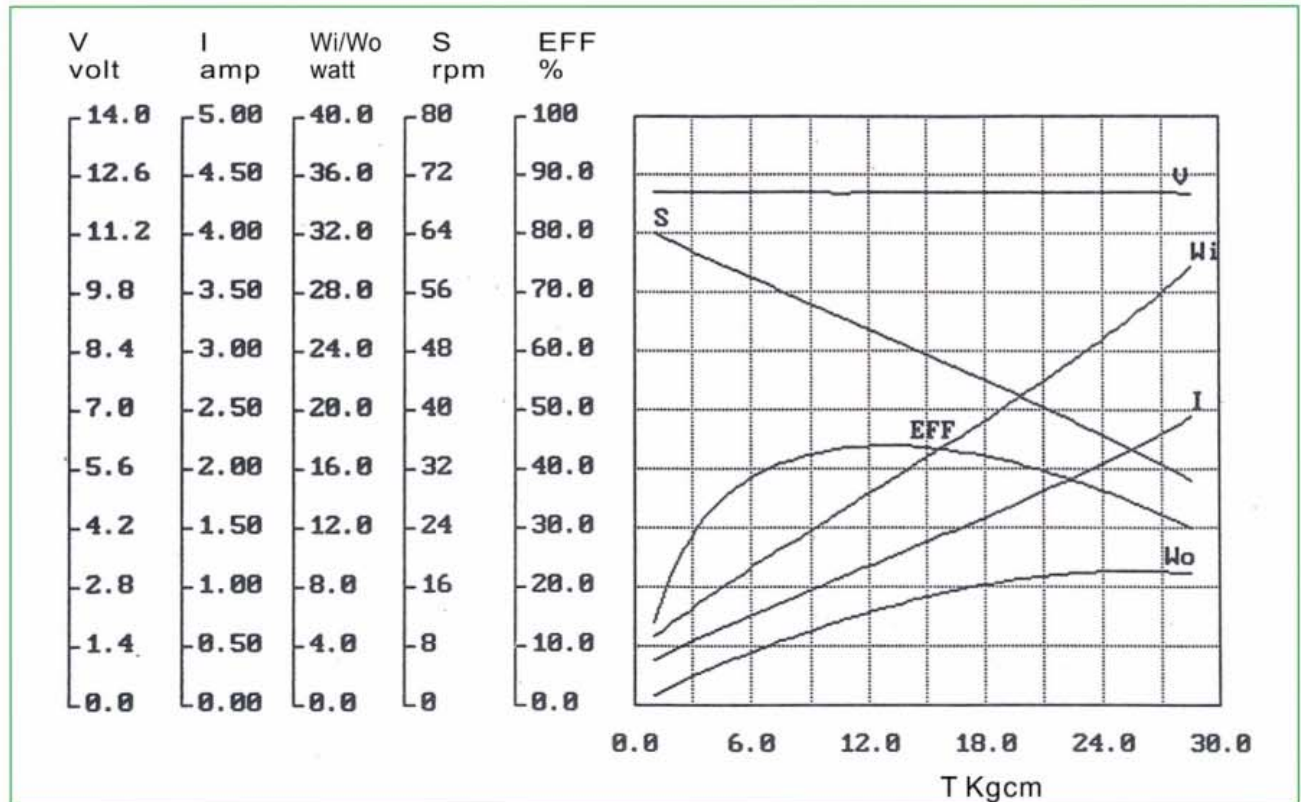
Reduction Ratio (1/i) : 1/4 - 1/864

With encoder available

PT3929



## 12VDC No Load 66rpm (RATIO : 1/49) Torque/Speed Performance Curve



NO	R.P.M.	VOLT (V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	64	12.17	0.39	4.7	1.00	0.7	14.9
2	61	12.16	0.57	6.9	3.50	2.2	31.9
3	54	12.16	0.98	11.9	9.20	5.1	42.9
4	50	12.15	1.26	15.3	13.20	6.8	44.4
5	49	12.16	1.33	16.2	14.20	7.1	43.8
6	46	12.16	1.40	17.0	15.30	7.2	42.4
7	44	12.16	1.61	19.6	18.30	8.3	42.3
8	42	12.16	1.68	20.4	19.40	8.4	41.2
9	42	12.16	1.77	21.5	20.40	8.8	40.9
10	40	12.16	1.85	22.5	21.40	8.8	39.1
11	38	12.16	1.91	23.2	22.40	8.7	37.5
12	37	12.16	1.99	24.2	23.40	8.9	36.8
13	36	12.16	2.11	25.7	24.90	9.2	35.8
14	31	12.15	2.34	28.4	27.90	8.9	31.3
15	30	12.16	2.53	30.8	29.00	8.9	28.9

PLANETARY GEAR



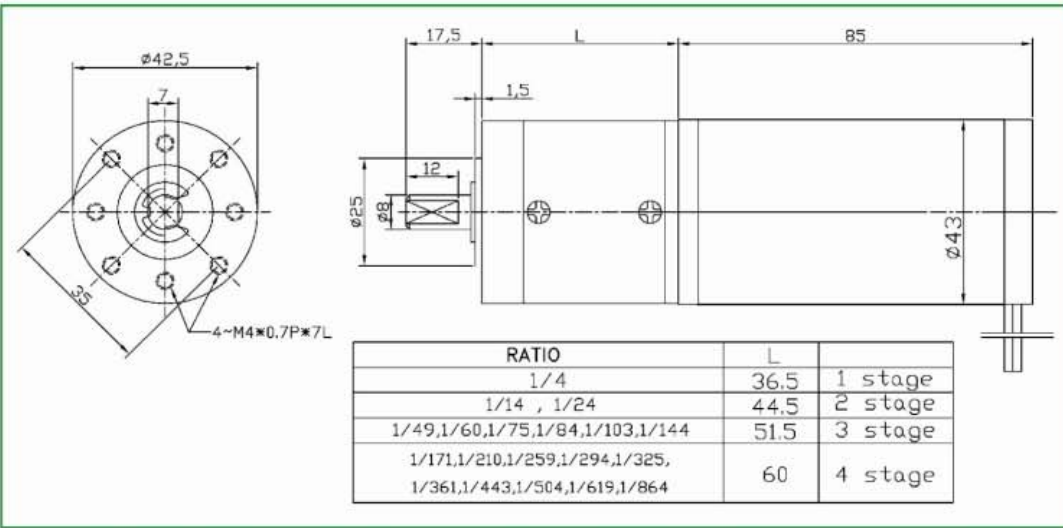
φ 43mm

Recommended initial speed : 3,600 rpm

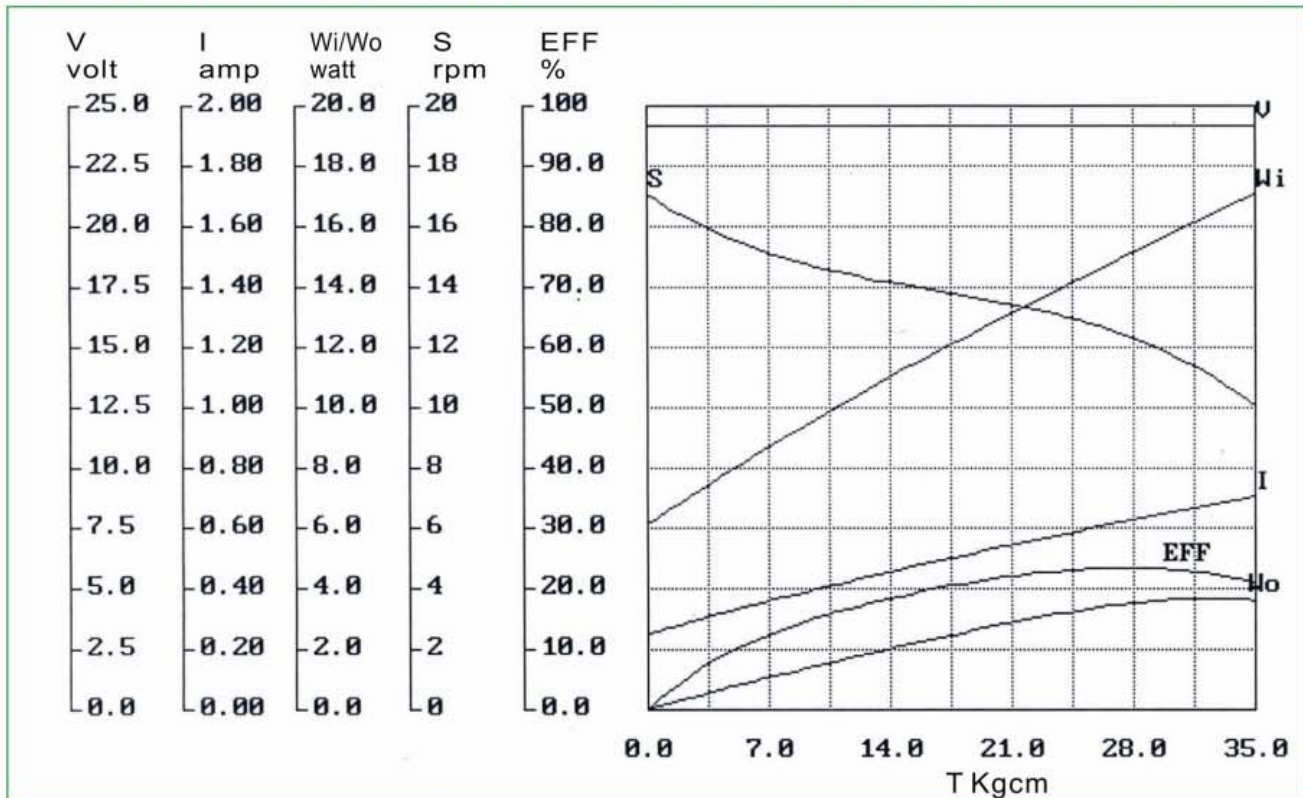
Reduction Ratio (1/i) : 1/4 - 1/864

With encoder available

**PTC3929**



## 24V, No Load 19rpm (RATIO : 1/210) Torque/Speed Performance Curve

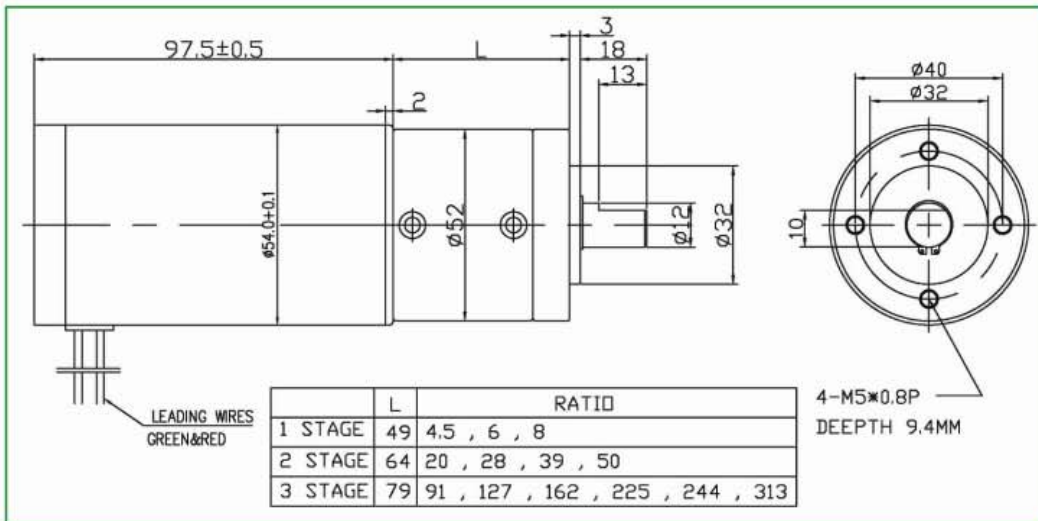


NO	R.P.M.	VOLT (V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	18	24.15	0.24	5.8	0.00	0.0	0.0
2	16	24.15	0.29	7.0	0.40	0.1	1.4
3	16	24.15	0.32	7.7	5.10	0.8	10.4
4	14	24.15	0.34	8.2	7.70	1.1	13.4
5	15	24.18	0.39	9.4	10.30	1.6	17.0
6	14	24.17	0.46	11.1	12.60	1.8	16.2
7	14	24.16	0.51	12.3	15.10	2.2	17.9
8	14	24.17	0.50	12.1	17.70	2.5	20.7
9	14	24.15	0.54	13.0	20.40	2.9	22.3
10	14	24.15	0.56	13.5	22.90	3.3	24.4
11	12	24.18	0.59	14.3	25.50	3.1	21.7
12	12	24.15	0.61	14.7	28.20	3.5	23.8
13	12	24.15	0.67	16.2	30.40	3.7	22.8
14	10	24.15	0.68	16.4	33.20	3.4	20.7
15	10	24.14	0.73	17.6	36.30	3.7	21.0
N	0	0.00	0.00	0.0	0.00	0.0	0.0
R	0	0.00	0.00	0.0	0.00	0.0	0.0
L	0	0.00	0.00	0.0	0.00	0.0	0.0

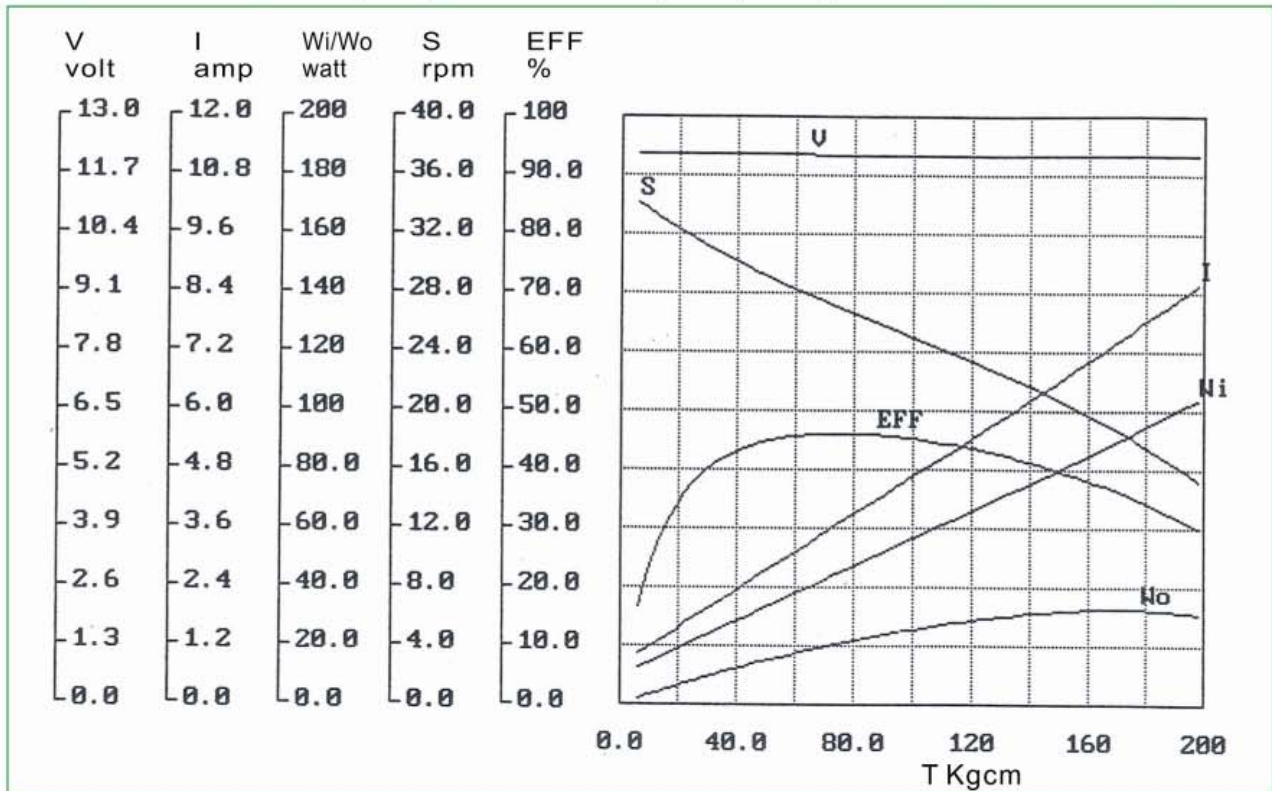


φ 54mm Recommended initial speed : 3,000 rpm  
 Reduction Ratio (1/i) : 1/4.5 - 1/313  
 With encoder/brake available

**PT4835**



## 12VDC No Load 35rpm (RATIO : 1/91) Torque/Speed Performance Curve



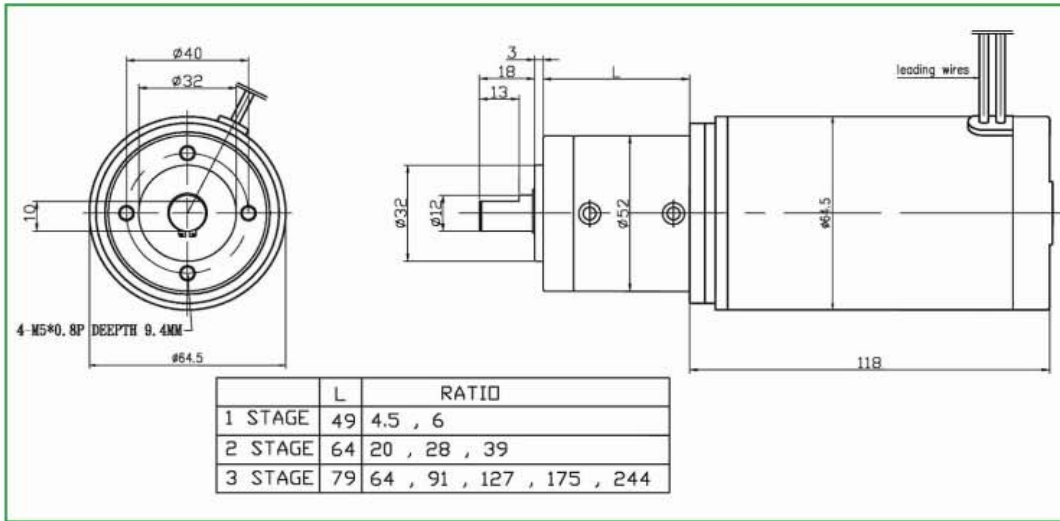
NO	R.P.M.	VOLT (V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	34.0	12.16	1.03	12.47	6.00	2.10	16.84
2	32.9	12.16	1.24	15.04	13.00	4.40	29.26
3	32.8	12.16	1.43	17.41	17.00	5.70	32.74
4	32.7	12.16	1.63	19.79	20.00	6.70	33.86
5	32.1	12.16	1.80	21.87	24.00	7.90	36.12
6	30.9	12.16	2.06	25.03	31.00	9.80	39.15
7	29.7	12.16	2.38	28.89	42.00	12.80	44.31
8	28.7	12.16	2.91	35.32	56.00	16.50	46.72
9	27.4	12.16	3.56	43.34	72.00	20.20	46.61
10	25.9	12.15	4.24	51.51	86.00	22.90	44.46
11	24.2	12.13	4.86	58.93	106.00	26.30	44.63
12	22.8	12.13	5.76	69.88	128.00	29.90	42.79
13	20.6	12.13	6.58	79.75	153.00	32.30	40.50
14	17.9	12.13	7.81	94.76	176.00	32.30	34.09
15	14.8	12.13	8.63	104.63	201.00	30.50	29.15

PLANETARY GEAR

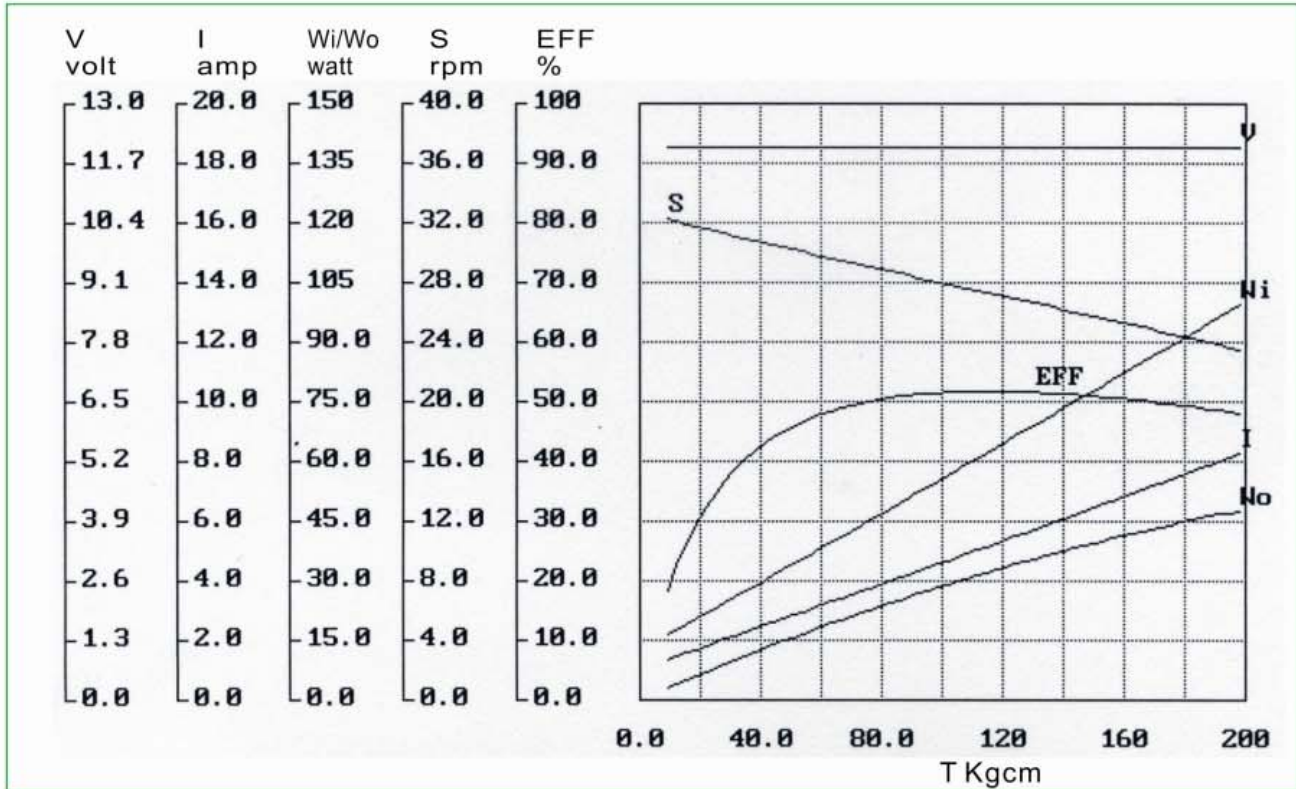


φ 64.5mm Recommended initial speed : 3,000 rpm  
 Reduction Ratio (1/i) : 1/4.5 - 1/244  
 With encoder/brake available

**PT5946**



### 12VDC No Load 33rpm (RATIO : 1/91) Torque/Speed Performance Curve



PLANETARY GEAR

NO	R.P.M.	VOLT (V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	32.4	12.04	1.29	15.58	9.00	3.00	19.26
2	31.5	12.07	1.64	19.74	16.00	5.20	26.34
3	31.9	12.04	1.73	20.77	19.00	6.20	29.85
4	31.6	12.05	1.86	22.36	23.00	7.50	33.54
5	31.5	12.05	2.02	24.32	27.00	8.70	35.77
6	30.9	12.04	2.26	27.24	34.00	10.80	39.65
7	30.4	12.04	2.66	32.04	45.00	14.00	43.70
8	29.8	12.04	3.07	36.94	57.00	17.40	47.10
9	29.6	12.04	3.43	41.25	69.00	21.00	50.91
10	28.7	12.04	4.04	48.60	83.00	24.40	50.21
11	28.1	12.03	4.61	55.52	98.00	28.30	50.97
12	27.1	12.04	5.23	63.01	118.00	32.80	52.06
13	26.4	12.04	5.89	70.94	136.00	36.80	51.87
14	25.5	12.04	6.85	82.51	158.00	41.30	50.05
15	24.3	12.04	7.49	90.15	178.00	44.40	49.25
16	23.4	12.02	8.37	100.57	201.00	48.30	48.03



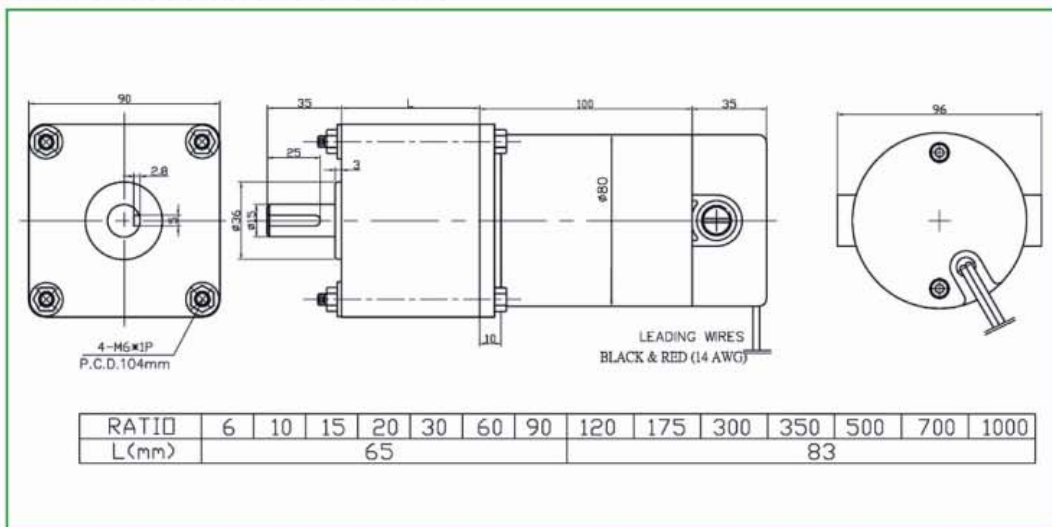
φ 80mm

Recommended initial speed : 2,200 rpm

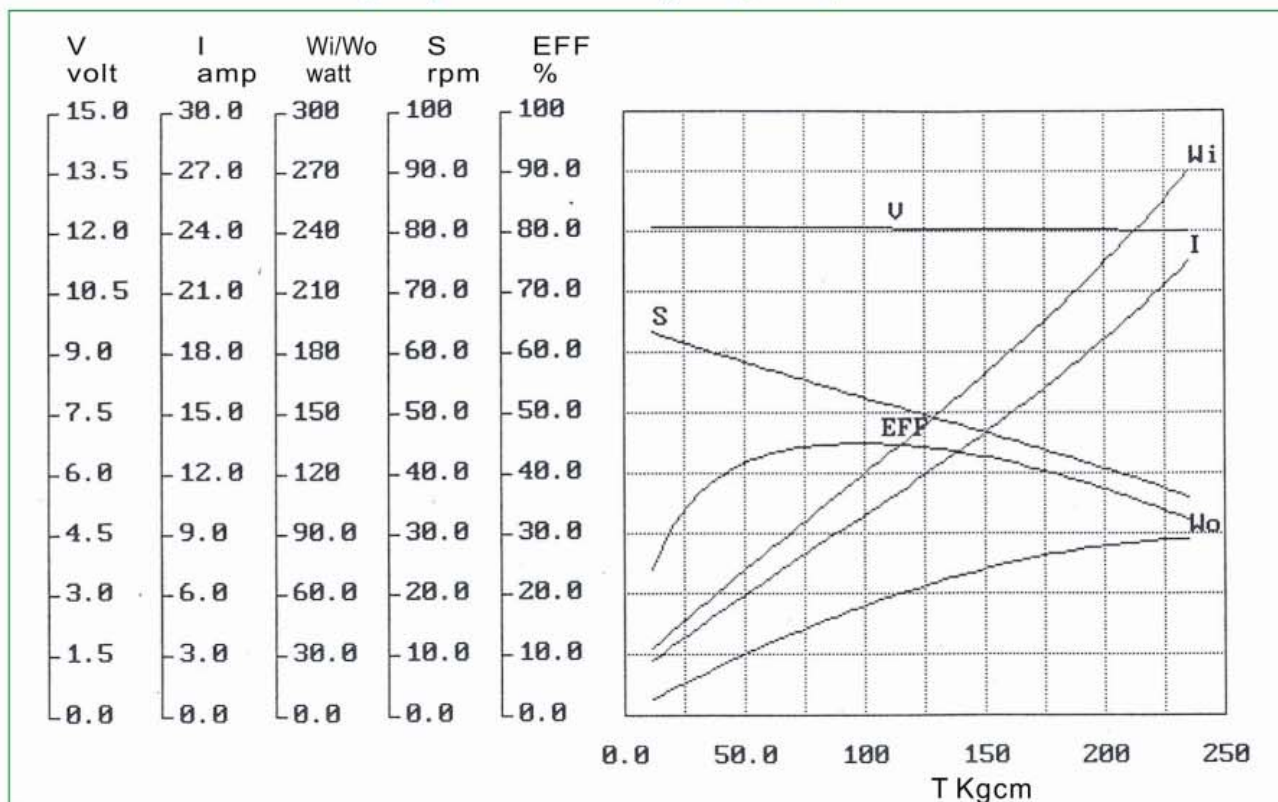
Reduction Ratio (1/i) : 1/6 - 1/1000

With encoder/brake available

**PT7152**



## 12VDC No Load 65rpm (RATIO : 1/36) Torque/Speed Performance Curve



NO	R.P.M.	VOLT (V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	63.3	12.10	2.66	32.20	12.00	7.80	24.22
2	63.1	12.10	2.98	36.04	16.00	10.40	28.86
3	60.8	12.10	4.14	50.12	27.00	16.80	33.52
4	60.6	12.10	4.90	59.28	35.00	21.80	36.77
5	59.0	12.10	5.27	63.81	42.00	25.40	39.81
6	58.1	12.10	6.00	72.57	54.00	32.20	44.37
7	52.9	12.08	9.83	118.76	98.00	53.20	44.80
8	50.2	12.07	11.26	135.95	120.00	61.80	45.46
9	47.2	12.05	13.61	163.97	146.00	70.70	43.12
10	44.8	12.05	15.75	189.76	165.00	75.80	39.95
11	42.0	12.03	18.24	219.42	190.00	81.90	37.33
12	39.5	12.04	18.77	225.97	213.00	86.30	38.19
13	35.4	12.00	23.38	280.61	239.00	86.80	30.93

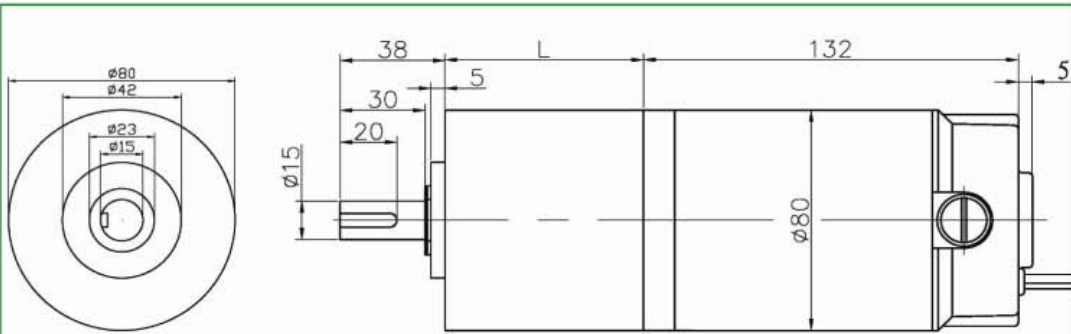
PLANETARY GEAR





φ 80mm Recommended initial speed : 3,000 rpm  
 Reduction Ratio (1/i) : 1/4.5 - 1/244  
 With encoder/brake available

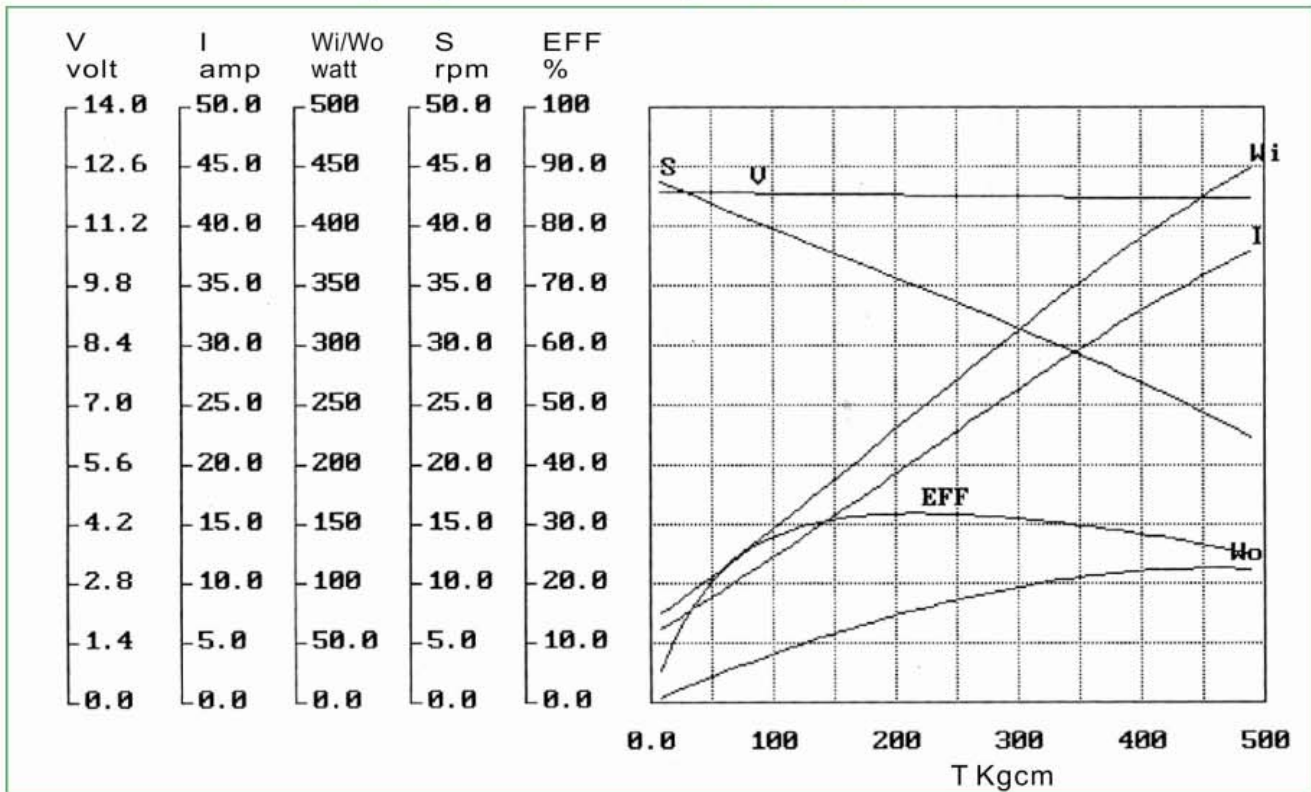
**PTC7152**



N.W 5.2 KGS/PCS  
 6PCS A CTN/N.W.31.5 KGS  
 G.W. 32.5KGS CFT. 2.4

	L	RATIO
1 STAGE	39.3	4.5 , 6
2 STAGE	54	20 , 28 , 39
3 STAGE	68.7	64 , 91 , 127 , 175 , 244

## 12VDC No Load 44rpm (RATIO : 1/91) Torque/Speed Performance Curve



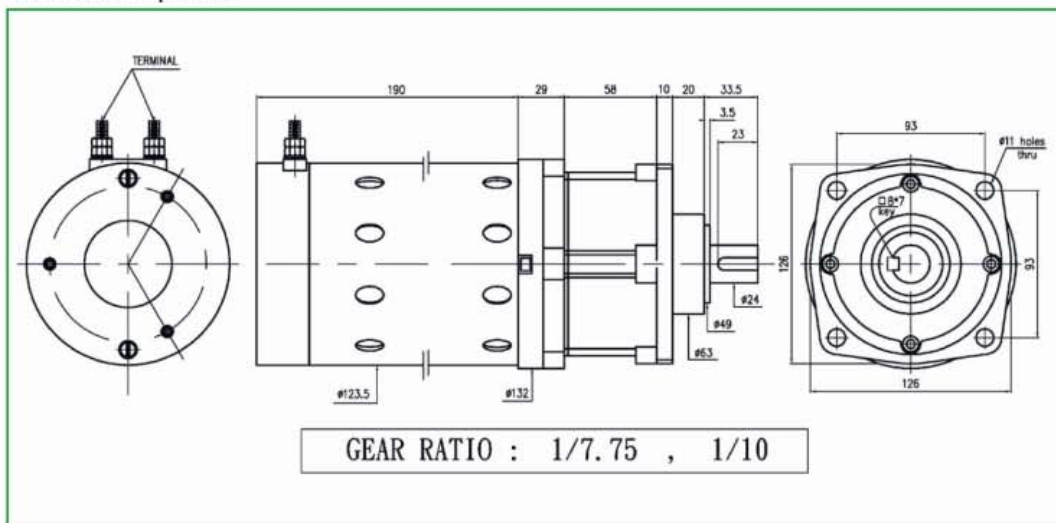
PLANETARY GEAR

NO	R.P.M.	VOLT (V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	43.4	12.00	6.47	77.70	9.00	4.03	5.18
2	42.5	11.99	7.87	94.37	39.00	17.01	18.02
3	41.4	11.99	8.82	105.79	59.00	25.07	23.69
4	41.3	11.96	11.20	133.96	78.00	33.05	24.67
5	39.6	11.95	12.35	147.61	99.00	40.21	27.24
6	38.8	11.96	14.44	172.76	129.00	51.32	29.71
7	37.3	11.94	15.95	190.55	156.00	59.68	31.32
8	35.5	11.94	18.17	217.04	194.00	70.65	32.55
9	35.2	11.92	21.92	261.37	227.00	81.99	31.37
10	32.6	11.90	23.77	282.93	263.00	87.95	31.09
11	31.1	11.87	26.90	319.18	298.00	95.12	29.80
12	29.6	11.88	28.08	333.78	337.00	102.35	30.66
13	28.3	11.88	30.52	362.40	378.00	109.74	30.28
14	26.0	11.84	35.61	421.45	422.00	112.57	26.71
15	24.5	11.84	35.74	422.99	457.00	114.88	27.16
16	21.5	11.83	38.22	452.05	496.00	109.44	24.21

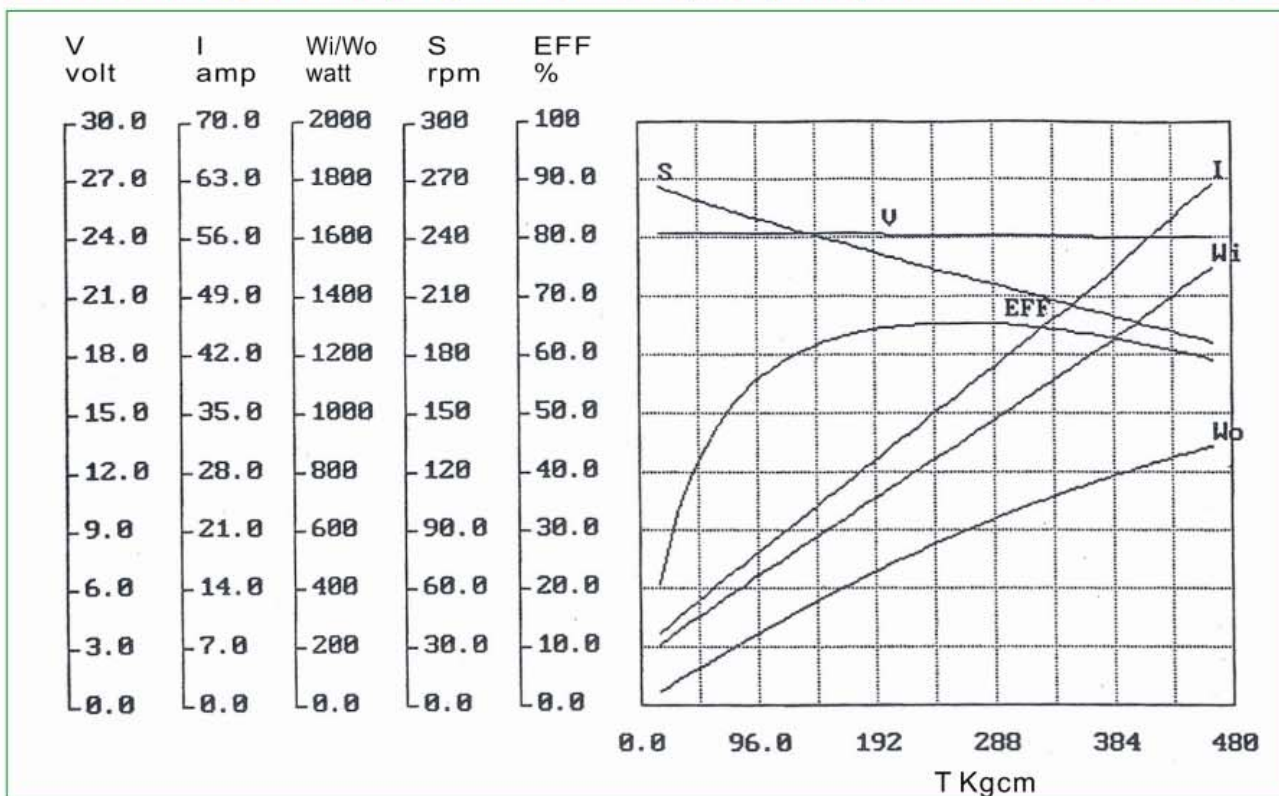


$\phi$  123.5mm Recommended initial speed : 2,200rpm  
 Reduction Ratio (1/i) : 1/7.5 , 1/10  
 With encoder/brake available  
 Stand : Option

PT1188



## 24VDC No Load 270rpm (RATIO : 1/10) Torque/Speed Performance Curve



NO	R.P.M.	VOLT (V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	264.3	24.23	8.86	214.72	16.00	43.60	20.31
2	262.8	24.24	10.28	249.03	31.00	83.60	33.57
3	254.0	24.20	16.02	387.57	77.00	200.70	51.78
4	248.8	24.17	18.63	450.24	100.00	255.31	56.70
5	238.7	24.17	25.49	616.05	159.00	389.40	63.21
6	231.3	24.17	29.66	716.95	191.00	453.30	63.23
7	218.8	24.12	38.70	933.40	273.00	612.90	65.66
8	205.0	24.07	47.90	1153.07	350.00	736.20	63.85
9	200.0	24.02	52.93	1271.55	390.00	800.30	62.94
10	191.6	23.99	58.13	1394.78	431.00	847.30	60.75
11	184.7	23.99	63.45	1522.48	471.00	892.60	58.63

PLANETARY GEAR

# WORM GEARED MOTOR

WG3929



φ 43.5mm

Ratio (1/i) : 1/31, 1/61, 1/86

WG5850



φ 63.5mm

Ratio (1/i) : 1/10, 1/15, 1/30

WG6551R



φ 70.5mm

Ratio (1/i) : 1/65

FG7152



φ 80mm

Ratio (1/i) : 1/20 - 1/50

WG5539



φ 61mm

Ratio (1/i) : 1/55

WG5946



φ 63.5mm

Ratio (1/i) : 1/10, 1/15, 1/30

WG6551L



φ 70.5mm

Ratio (1/i) : 1/65

ANCN7152 R



φ 80mm

Ratio (1/i) : 1/10, 1/15, 1/30

LM5844



φ 61mm

AN5946



φ 64.5mm

Ratio (1/i) : 1/6, 1/10, 1/15, 1/30

TLCM7152



φ 80mm

Ratio (1/i) : 1/50

ANCN7152L



φ 80mm

Ratio (1/i) : 1/10, 1/15, 1/30

ANCN7152-E



φ 80mm

Ratio (1/i) : 1/10, 1/15, 1/30

WG7185



φ 80mm

Ratio (1/i) : 1/10- 1/50

WG1188A



φ 123.5mm

Ratio (1/i) : 1/7.5 - 1/30

WG7152



φ 80mm

Ratio (1/i) : 1/10- 1/50

ASTG7256 R&L



φ 80mm

Ratio (1/i) : 1/65

WG1188B



φ 123.5mm

Ratio (1/i) : 1/7.5 - 1/30

WG7165



φ 80mm

Ratio (1/i) : 1/10- 1/50

G8156



φ 89mm

Ratio (1/i) : 1/6, 1/10, 1/15, 1/30

WG1188C



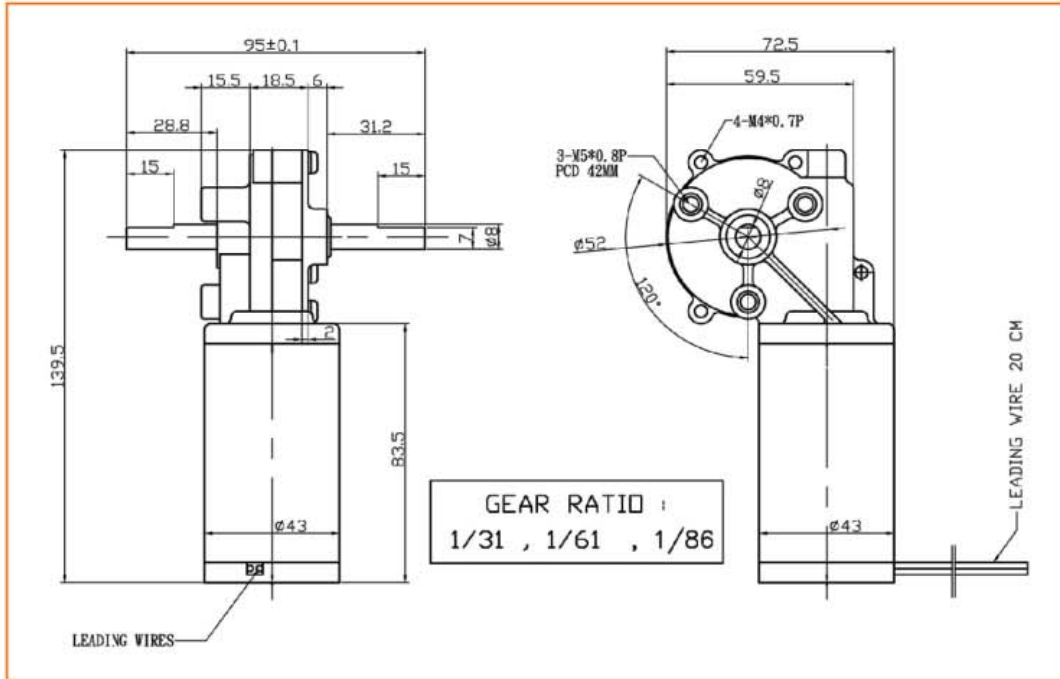
φ 123.5mm

Ratio (1/i) : 1/7.5 - 1/30

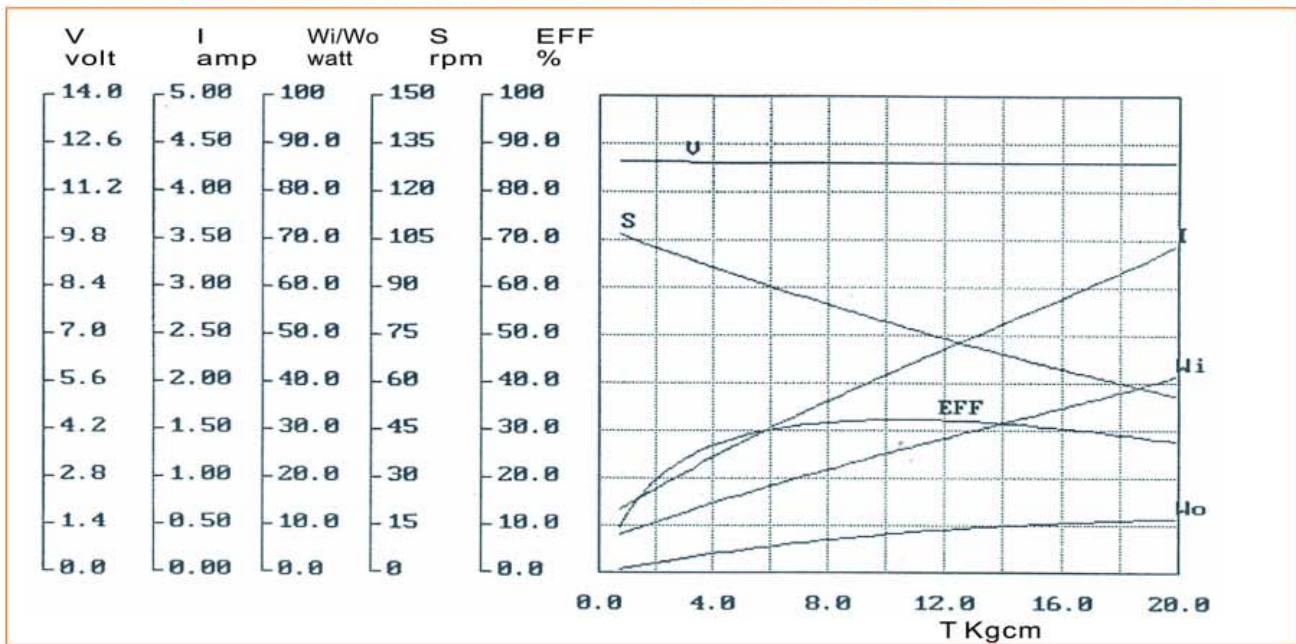


φ 43mm ,Plastic gear  
 Ratio (1/i) : 1/31 , 1/61 , 1/86  
 With encoder available

## WG3929



### 12VDC No Load 210rpm (RATIO : 1/31) Torque/Speed Performance Curve



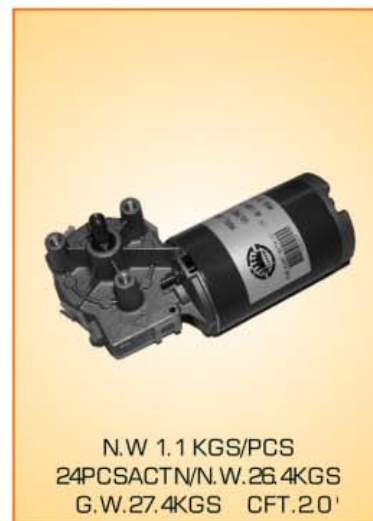
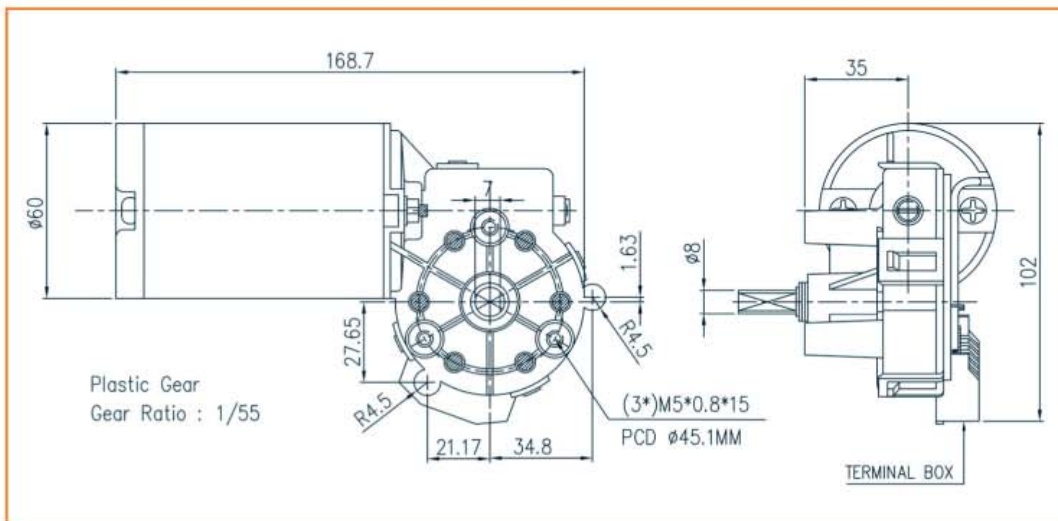
WORM GEAR

NO	R.P.M.	VOLT(V)	I(AMP)	INPUT(W)	TORQUE(KG-CM)	OUTPUT(W)	EFF(%)
1	107	12.07	0.66	8.0	0.70	0.8	10.0
2	95	12.07	1.24	15.0	4.10	4.0	26.7
3	89	12.05	1.68	20.2	7.00	6.4	31.7
4	84	12.04	1.85	22.3	8.50	7.3	32.7
5	78	12.04	2.10	25.3	9.90	7.9	31.2
6	75	12.04	2.28	27.5	11.40	8.8	32.0
7	68	12.04	2.65	31.9	14.30	10.0	31.3
8	65	12.04	2.88	34.7	15.80	10.5	30.3
9	63	12.04	3.03	36.5	17.20	11.1	30.4
10	58	12.04	3.26	39.3	18.70	11.1	28.2
11	55	12.04	3.48	41.9	20.20	11.4	27.2

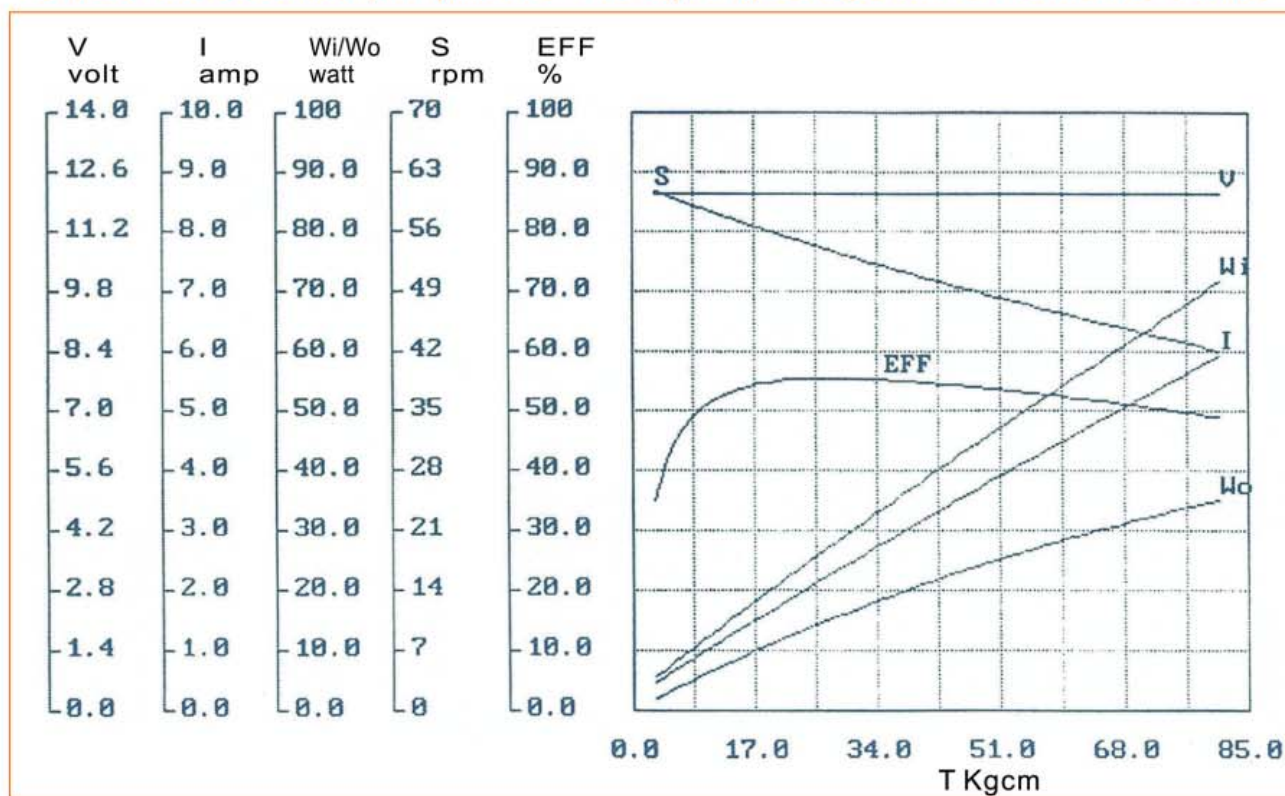


φ 61mm ,Plastic gear  
 Ratio (1/i) : 1/55  
 With encoder/brake available

**WG5539**



## 12VDC No Load 65rpm (RATIO : 1/55) Torque/Speed Performance Curve



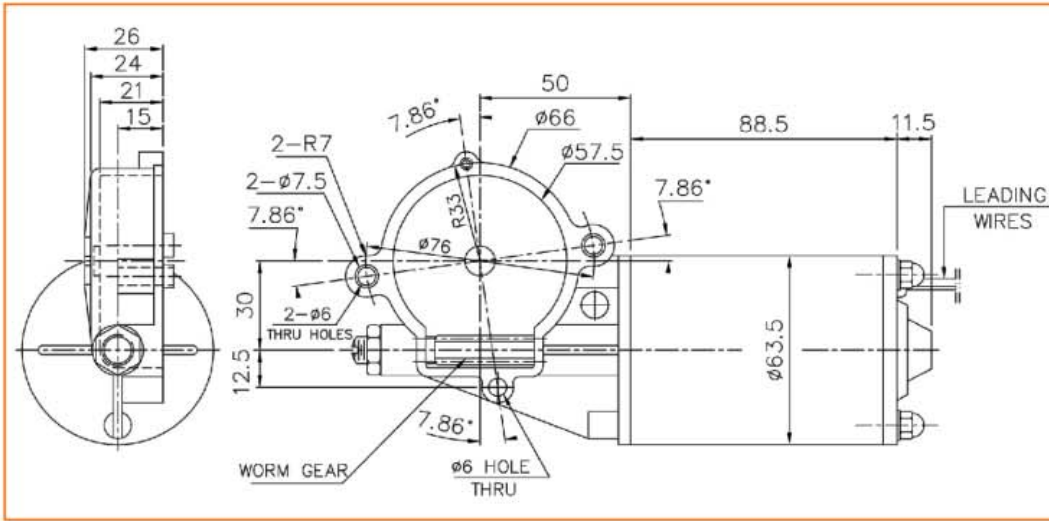
NO	R.P.M.	VOLT(V)	I (AMP)	INPUT(W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	61	12.10	0.44	5.3	3.10	1.9	35.8
2	57	12.10	1.20	14.5	12.40	7.3	50.3
3	56	12.07	1.90	22.9	22.40	12.9	56.3
4	53	12.07	2.56	30.9	32.40	17.6	57.0
5	49	12.08	3.31	40.0	42.40	21.3	53.3
6	48	12.07	4.05	48.9	52.20	25.7	52.6
7	47	12.07	4.70	56.7	62.50	30.1	53.1
8	43	12.07	5.30	64.0	72.40	31.9	49.8
9	42	12.07	6.04	72.9	82.40	35.5	48.7

WORM GEAR

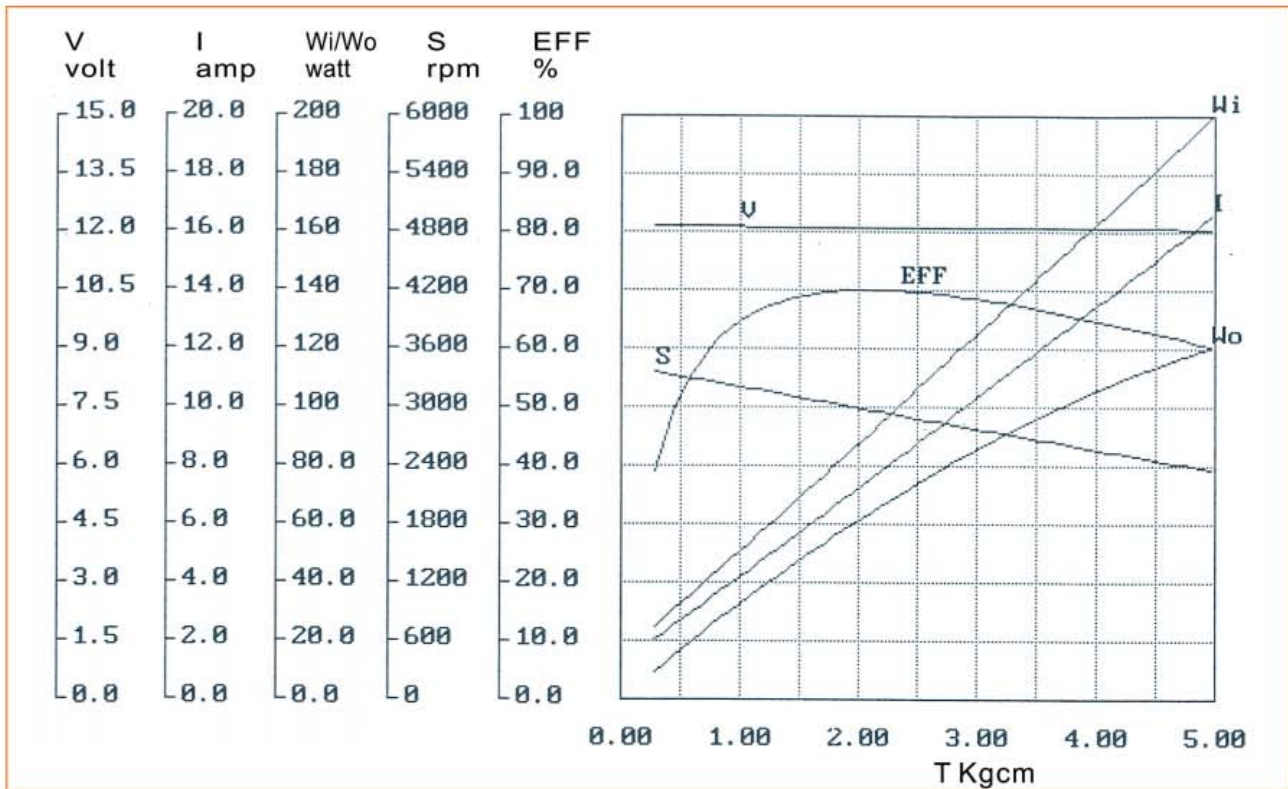


φ 63.5mm

LM5844



12VDC No Load 3500rpm (RATIO : ) Torque/Speed Performance Curve



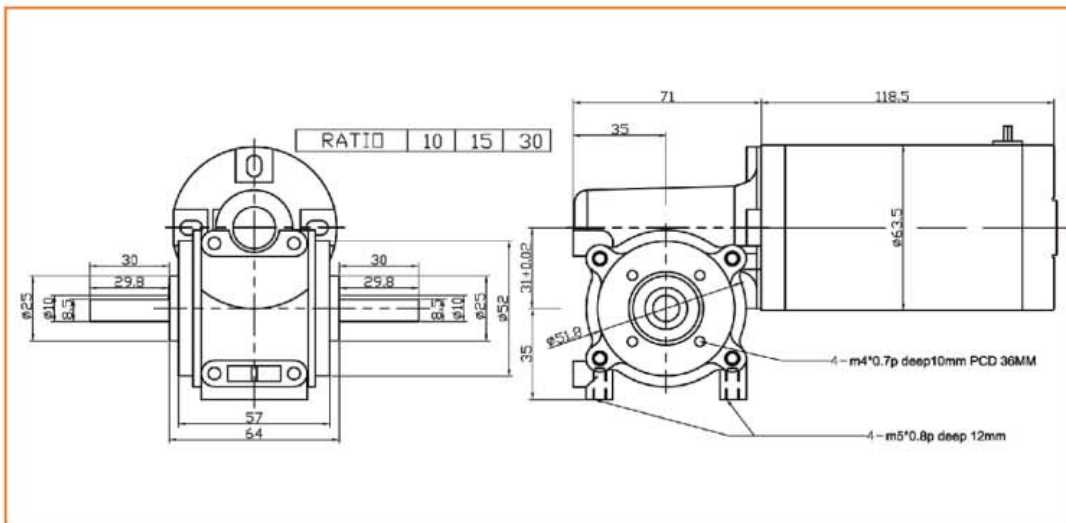
WORM GEAR

NO	R.P.M.	VOLT(V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	3357	12.13	2.05	24.9	0.28	9.6	38.6
2	3230	12.13	3.83	46.5	0.88	29.2	62.8
3	3099	12.13	5.67	68.8	1.49	47.4	68.9
4	2974	12.10	7.52	91.0	2.09	63.8	70.1
5	2845	12.10	9.39	113.6	2.70	78.8	69.4
6	2738	12.10	10.99	133.0	3.21	90.2	67.8
7	2610	12.10	12.89	156.0	3.82	102.3	65.6
8	2478	12.07	14.80	178.6	4.43	112.6	63.0
9	2339	12.07	16.77	202.4	5.05	121.2	59.9



φ 63.5mm, Brass gear  
 Ratio (1/i) : 1/10 , 1/15 , 1/30  
 With encoder/brake available

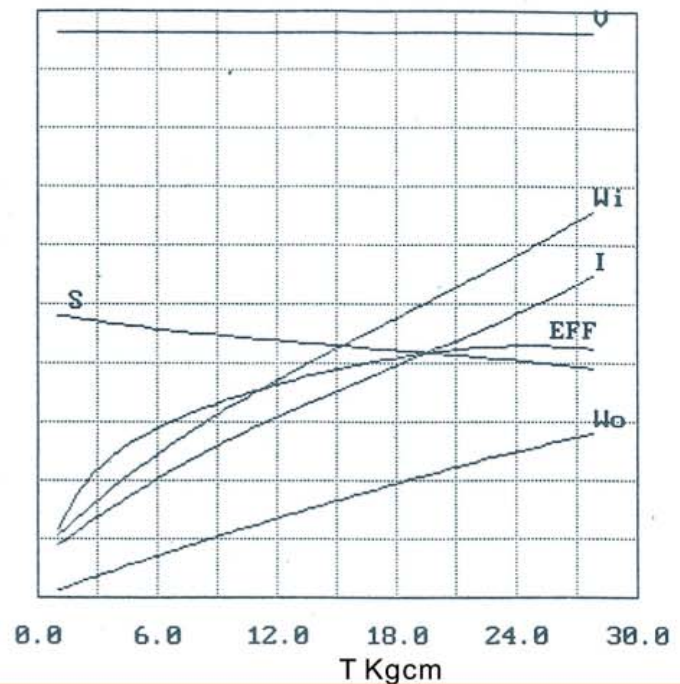
## WG5850



N.W 2.3 KGS/PCS  
 12 PCS A CTN/N.W.28 KGS  
 G.W.29 KGS CFT. 2.3

### 24VDC No Load 245rpm (RATIO : 1/15) Torque/Speed Performance Curve

V volt	I amp	Wi/Wo watt	S rpm	EFF %
25.0	10.0	200	500	100
22.5	9.0	180	450	90.0
20.0	8.0	160	400	80.0
17.5	7.0	140	350	70.0
15.0	6.0	120	300	60.0
12.5	5.0	100	250	50.0
10.0	4.0	80.0	200	40.0
7.5	3.0	60.0	150	30.0
5.0	2.0	40.0	100	20.0
2.5	1.0	20.0	50	10.0
0.0	0.0	0.0	0	0.0



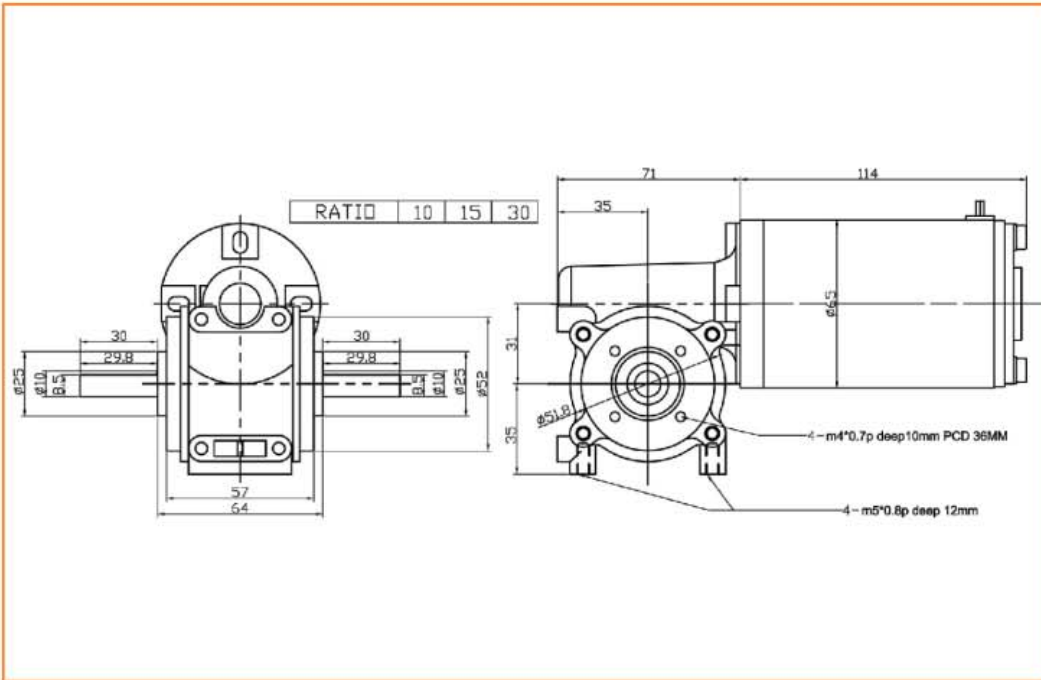
NO	R.P.M.	VOLT (V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	240	24.10	0.95	22.9	1.00	2.5	10.9
2	234	24.09	1.53	36.9	4.10	9.8	26.6
3	226	24.08	2.35	56.6	7.90	18.3	32.3
4	218	24.11	3.36	81.0	13.20	29.5	36.4
5	211	24.09	3.82	92.0	16.30	35.3	38.4
6	210	24.09	3.94	94.9	17.30	37.3	39.3
7	211	24.09	3.96	95.4	19.30	41.8	43.8
8	210	24.08	4.18	100.7	20.30	43.7	43.4
9	205	24.09	4.35	104.8	21.30	44.8	42.7
10	205	24.09	4.61	111.1	22.20	46.7	42.0
11	204	24.09	4.75	114.4	23.00	48.1	42.0
12	200	24.09	5.11	123.1	25.80	52.9	43.0
13	197	24.08	5.23	125.9	26.70	54.0	42.9
14	198	24.06	5.40	129.9	27.40	55.7	42.9
15	193	24.08	5.57	134.1	28.30	56.0	41.8

WORM GEAR

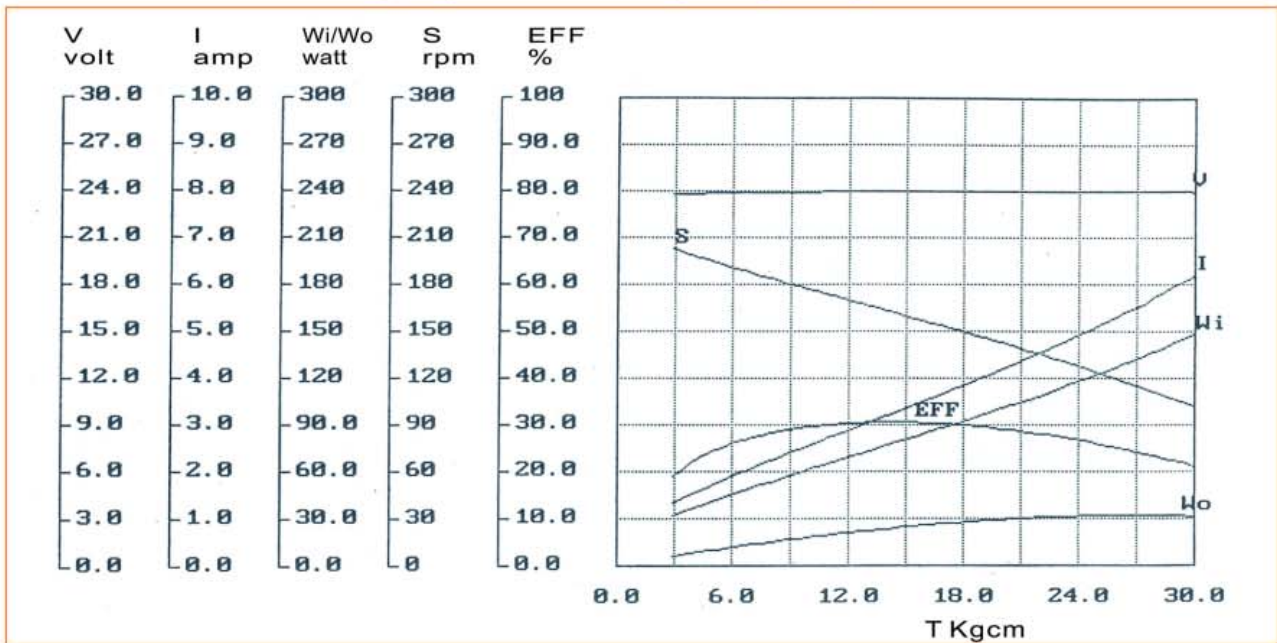


φ 64.5mm, Brass gear  
 Ratio (1/i) : 1/10 , 1/15 , 1/30  
 With encoder/brake available

## WG5946



### 24VDC No Load 210rpm (RATIO : 1/15) Torque/Speed Performance Curve



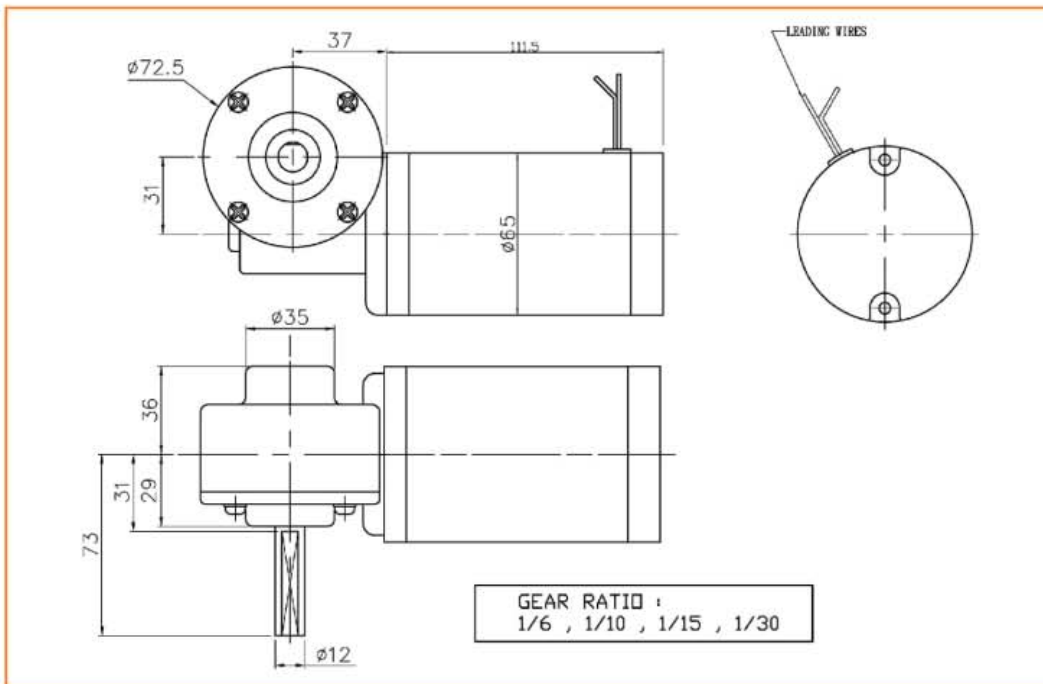
WORM GEAR

NO	R.P.M.	VOLT (V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	203	23.79	1.34	31.9	2.90	6.0	18.8
2	191	23.91	1.87	44.7	6.10	12.0	26.8
3	180	23.94	2.47	59.1	9.10	16.8	28.4
4	167	23.93	2.99	71.6	12.30	21.1	29.5
5	160	23.99	3.38	81.1	15.30	25.1	30.9
6	148	24.00	3.85	92.4	18.60	28.2	30.5
7	138	24.02	4.46	107.1	21.60	30.6	28.6
8	125	23.98	5.00	119.9	24.50	31.4	26.2
9	112	23.98	5.75	137.9	27.50	31.6	22.9
10	99	23.94	6.30	150.8	30.70	31.2	20.7

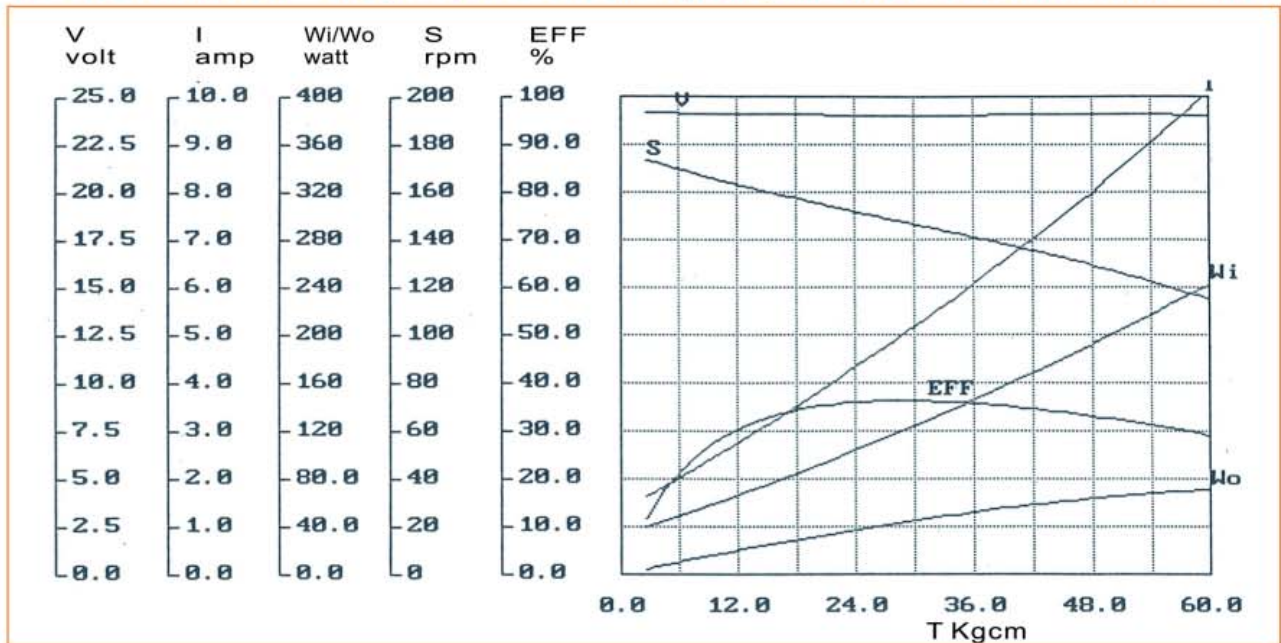


φ 64.5mm, Brass gear  
Ratio (1/i) : 1/6 , 1/10 , 1/15 , 1/30

AN5946



24VDC No Load 180rpm (RATIO : 1/15) Torque/Speed Performance Curve



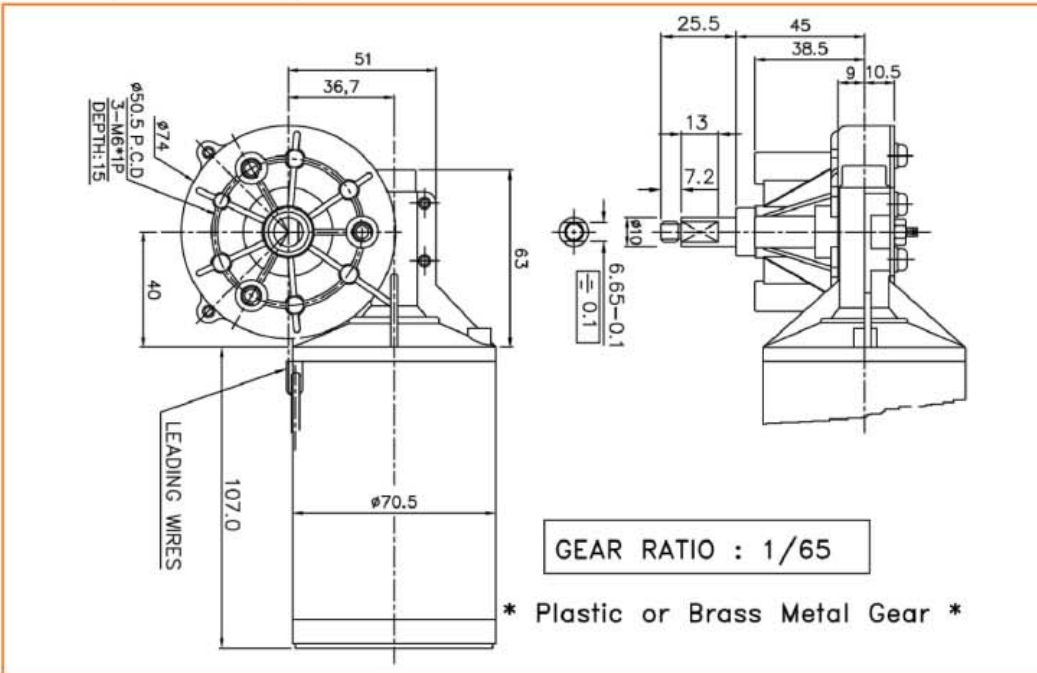
NO	R.P.M.	VOLT(V)	I(AMP)	INPUT(W)	TORQUE(KG-CM)	OUTPUT(W)	EFF(%)
1	173	24.19	1.63	39.4	2.60	4.6	11.7
2	166	24.05	2.52	60.6	10.20	17.4	28.7
3	158	24.04	3.49	83.9	17.60	28.5	34.0
4	151	24.06	4.46	107.3	24.80	38.4	35.8
5	143	24.05	5.45	131.1	32.30	47.4	36.2
6	138	24.06	6.61	159.0	39.60	56.1	35.3
7	131	24.03	7.85	188.6	47.00	63.2	33.5
8	122	24.02	9.14	219.5	54.40	68.1	31.0
9	112	24.04	10.41	250.3	61.70	70.9	28.3

WORM GEAR

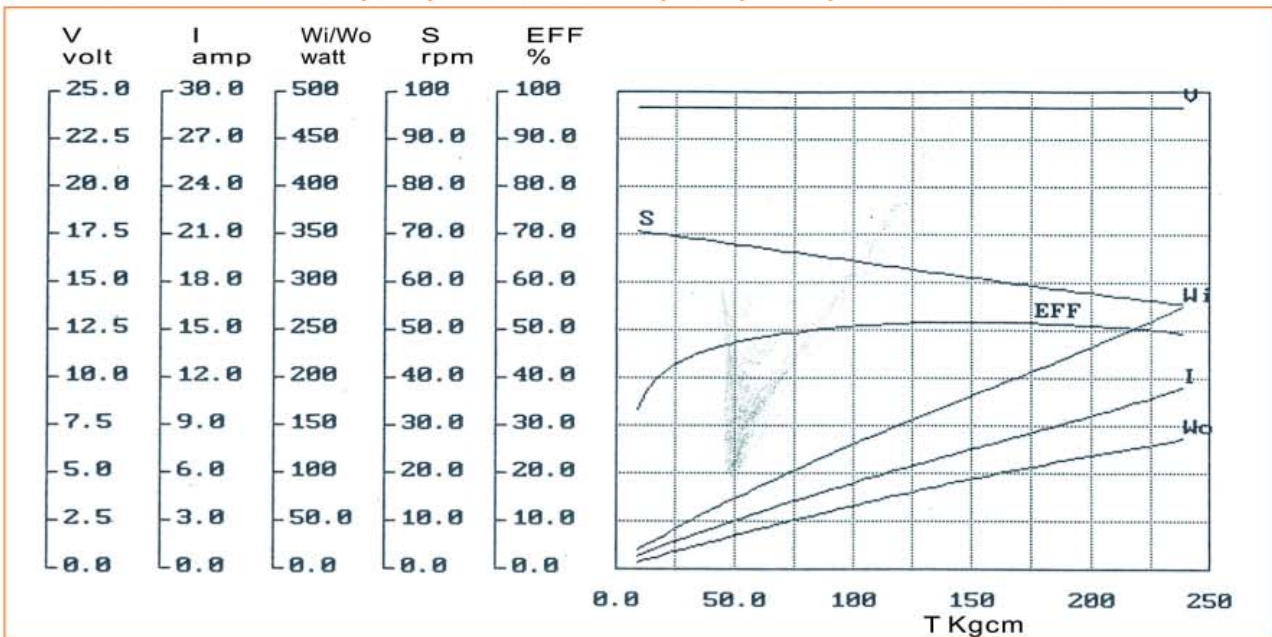


φ 70.5mm, Brass/plastic gear  
 Ratio (1/ i) : 1/65  
 With brake available  
 Left/Right Side output shaft option

**WG6551R&L**



**24VDC No Load 72rpm (RATIO : 1/65) Torque/Speed Performance Curve**



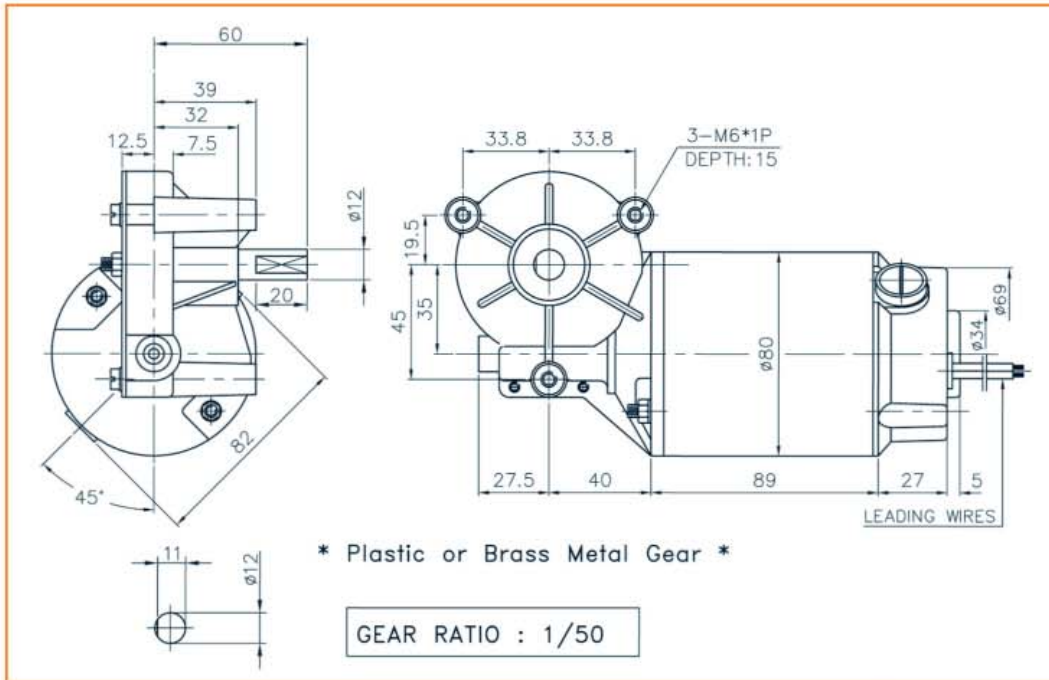
WORM GEAR

NO	R.P.M.	VOLT (V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	70.5	24.17	0.96	23.21	9.00	6.50	28.01
2	69.1	24.18	1.35	32.66	19.00	13.50	41.33
3	69.3	24.19	1.87	45.18	29.00	20.60	45.60
4	69.5	24.19	2.14	51.87	33.00	23.50	45.31
5	69.0	24.17	2.66	64.22	45.00	31.90	49.67
6	68.4	24.19	3.24	78.45	56.00	39.30	50.10
7	66.6	24.17	4.04	97.66	70.00	47.80	48.95
8	65.0	24.19	4.88	118.11	85.00	56.70	48.01
9	63.5	24.20	5.63	136.28	103.00	67.10	49.24
10	62.4	24.18	6.30	152.30	122.00	78.10	51.28
11	61.3	24.15	7.19	173.74	143.00	89.90	51.74
12	60.5	24.16	8.17	197.30	165.00	102.40	51.90
13	59.2	24.15	9.13	220.42	190.00	115.40	52.35
14	56.8	24.14	10.16	245.18	213.00	124.10	50.62
15	55.2	24.13	11.62	280.33	242.00	137.10	48.91



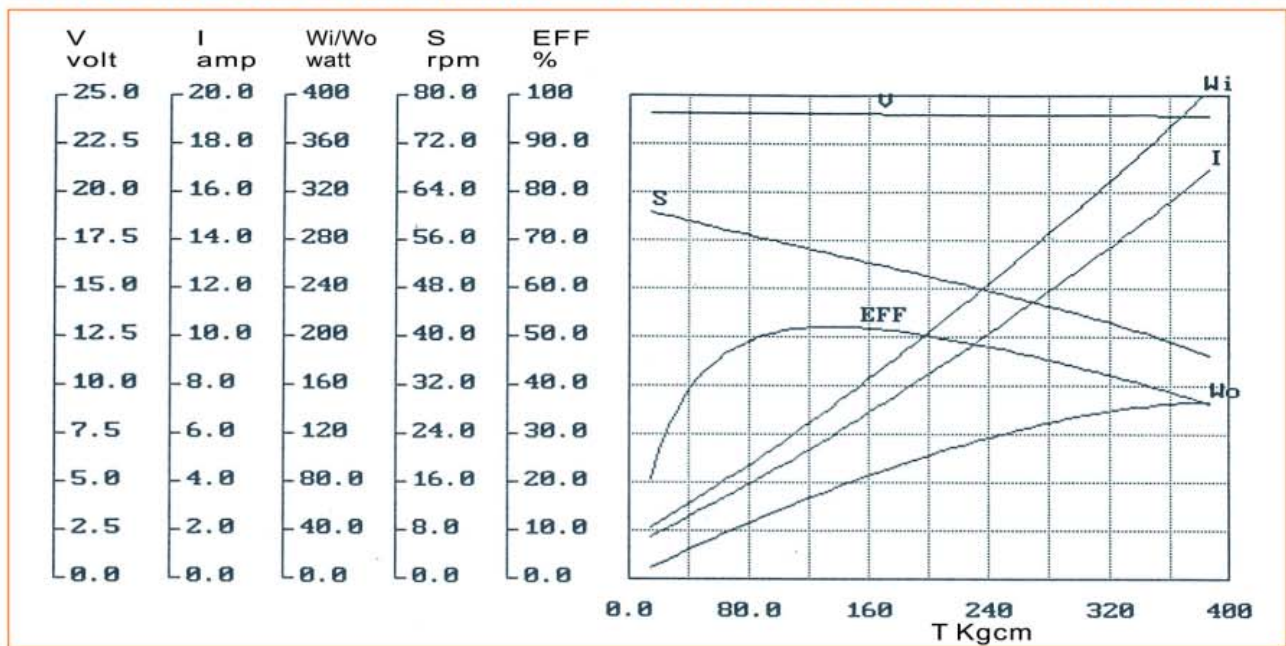
φ 80mm ,Brass/plastic gear  
Ratio (1/ i) : 1/50

TLCM7152



N.W 26KGS/PCS  
12 PCS A CTN/N.W.31KGS  
G.W.32KGS CFT.1.8

24VDC No Load 61rpm (RATIO : 1/50) Torque/Speed Performance Curve



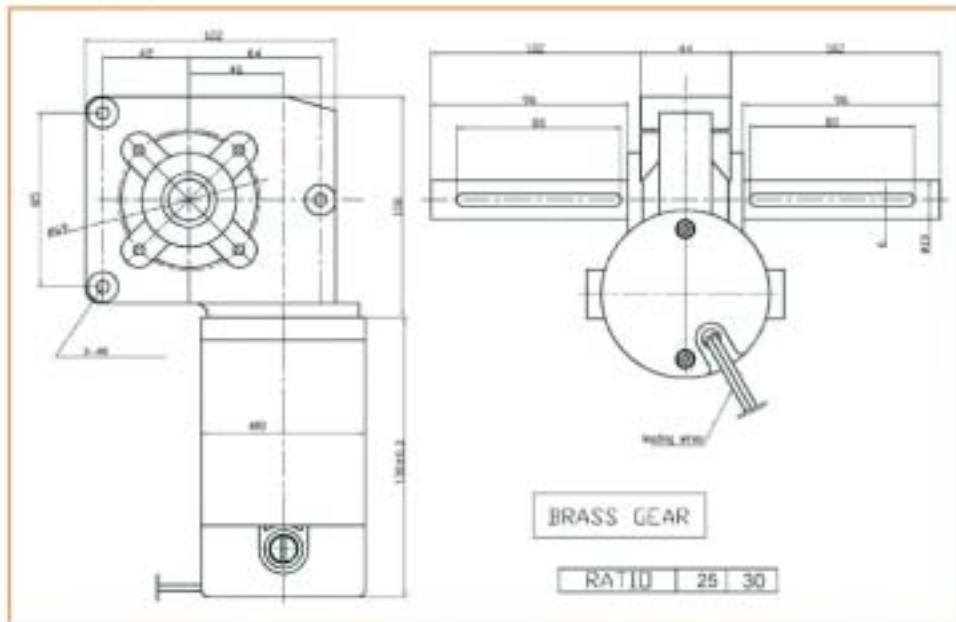
NO	R.P.M.	VOLT (V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	60.8	24.05	1.54	37.00	14.00	8.70	23.51
2	60.3	24.07	2.16	52.11	25.00	15.50	29.74
3	59.8	24.08	2.37	57.03	33.00	20.20	35.42
4	58.5	24.07	2.86	68.76	45.00	27.00	39.27
5	57.6	24.06	3.43	82.64	62.00	36.60	44.29
6	56.7	24.08	4.03	97.01	80.00	46.50	47.93
7	55.9	24.08	4.73	113.86	102.00	58.50	51.38
8	54.1	24.04	5.61	134.81	127.00	70.50	52.30
9	52.4	24.06	6.64	159.79	155.00	83.30	52.13
10	51.1	24.02	7.75	186.12	185.00	97.00	52.12
11	49.1	24.00	9.17	220.15	217.00	109.30	49.65
12	47.2	24.01	10.51	252.49	250.00	121.10	47.96
13	44.2	24.01	12.17	292.35	284.00	128.80	44.06
14	42.8	23.97	13.83	331.68	319.00	140.10	42.24
15	39.6	23.96	15.45	370.36	356.00	144.60	39.04
16	36.6	23.94	17.15	410.42	393.00	147.60	35.96

WORM GEAR

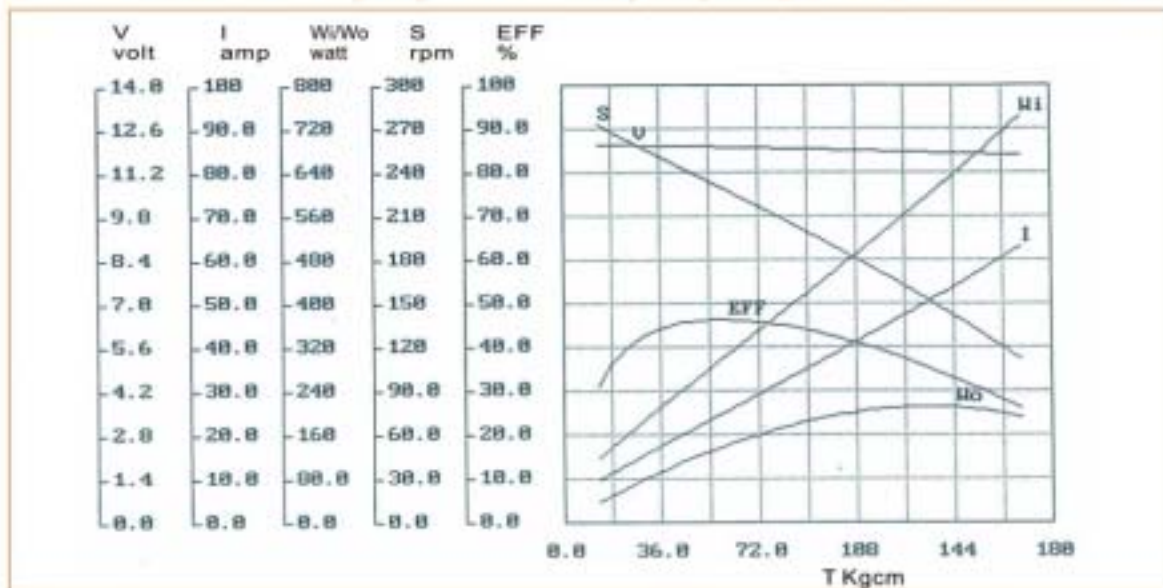


φ 80mm ,Brass gear  
Ratio (1/ I) : 1/25, 1/30

FG7152



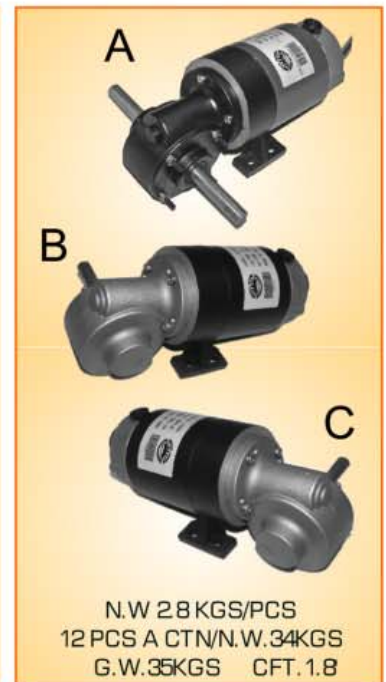
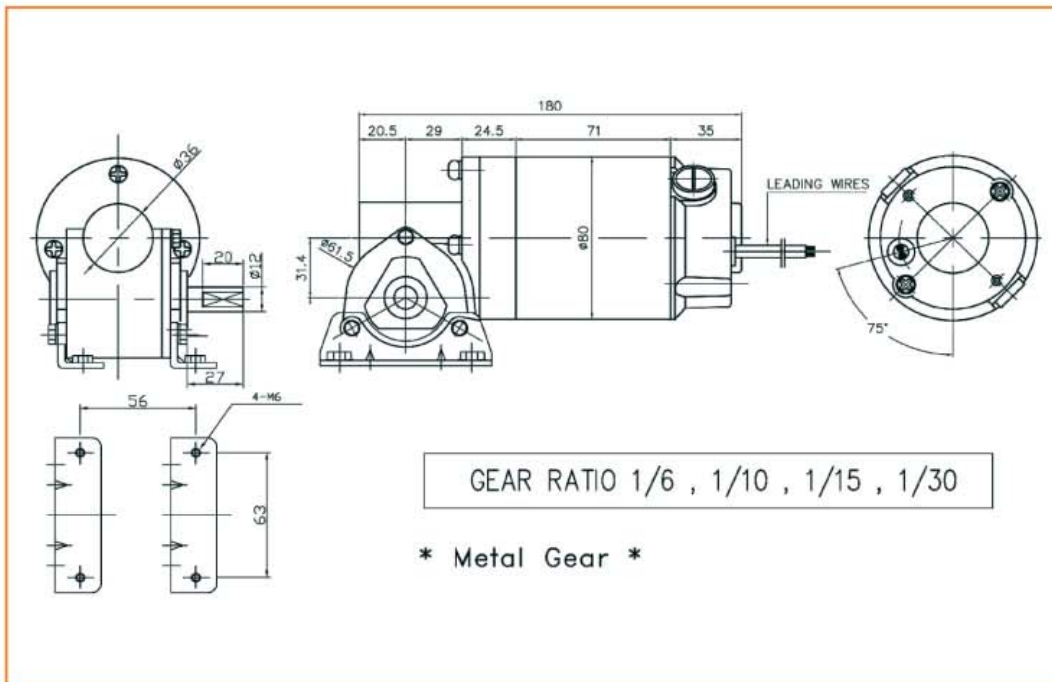
### 24VDC No Load 275rpm (RATIO : 1/17) Torque/Speed Performance Curve



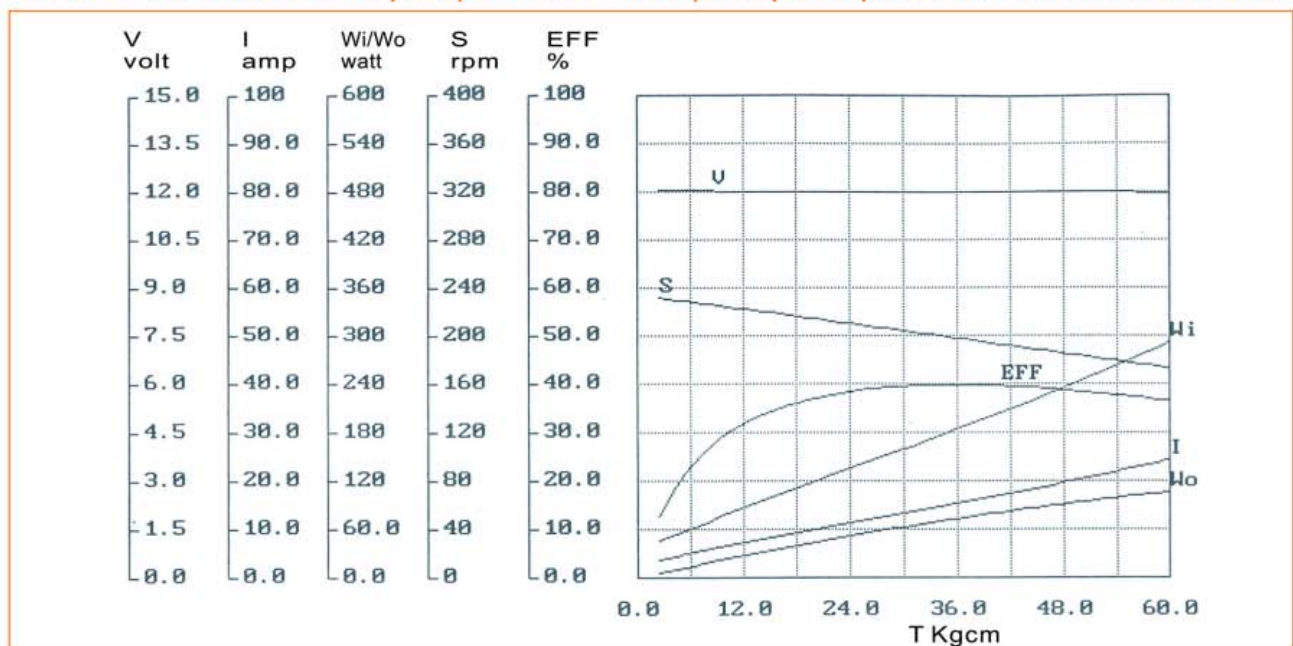
NO	R. P. M.	VOLT (V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	273.5	12.08	9.67	116.79	13.00	36.48	31.24
2	263.5	12.07	12.24	147.74	21.00	56.77	38.43
3	256.9	12.05	16.68	201.04	33.00	86.98	43.27
4	244.9	12.04	19.32	232.63	42.00	105.56	45.38
5	236.2	12.04	22.12	266.34	50.00	121.15	45.49
6	227.2	11.99	25.73	308.59	61.00	142.19	46.08
7	212.2	11.98	30.55	366.06	76.00	165.46	45.20
8	196.9	11.95	35.85	428.50	93.00	187.84	43.84
9	177.6	11.88	42.20	501.58	111.00	202.24	40.32
10	158.6	11.84	48.94	579.28	131.00	213.13	36.79
11	134.1	11.80	56.20	663.00	149.00	205.00	30.92
12	108.7	11.75	63.89	750.60	171.00	190.88	25.40

φ 80mm ,Brass gear  
 Ratio (1/ i) : 1/10 , 1/15 , 1/30  
 Left/Right/Both Side output shaft option

ANCN7152R&L



12VDC No Load 240rpm (RATIO : 1/15)Torque/Speed Performance Curve



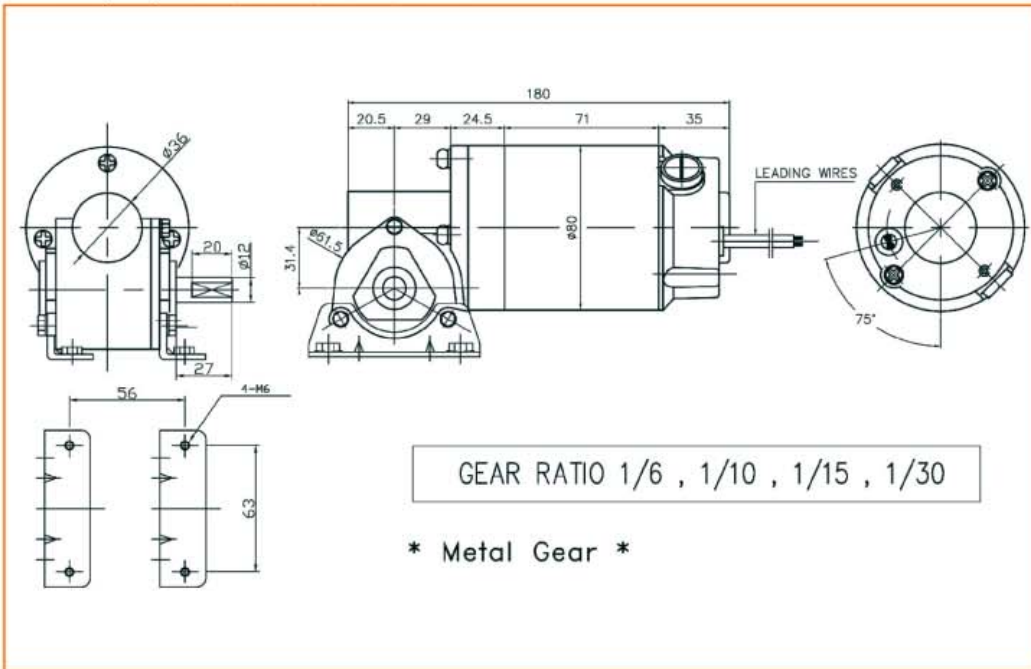
NO	R.P.M.	VOLT(V)	I(AMP)	INPUT(W)	TORQUE(KG-CM)	OUTPUT(W)	EFF (%)
1	232	12.04	3.86	46.5	2.40	5.7	12.3
2	224	12.03	6.36	76.5	9.90	22.8	29.8
3	218	12.01	8.85	106.3	17.50	39.1	36.8
4	209	12.00	11.60	139.2	24.60	52.8	37.9
5	202	12.00	14.15	169.8	32.10	66.5	39.2
6	193	12.00	16.56	198.7	39.60	78.4	39.5
7	188	12.00	19.10	229.2	47.10	90.9	39.7
8	177	11.98	22.04	264.0	54.30	98.6	37.3
9	172	11.95	25.15	300.5	61.50	108.5	36.1

WORM GEAR



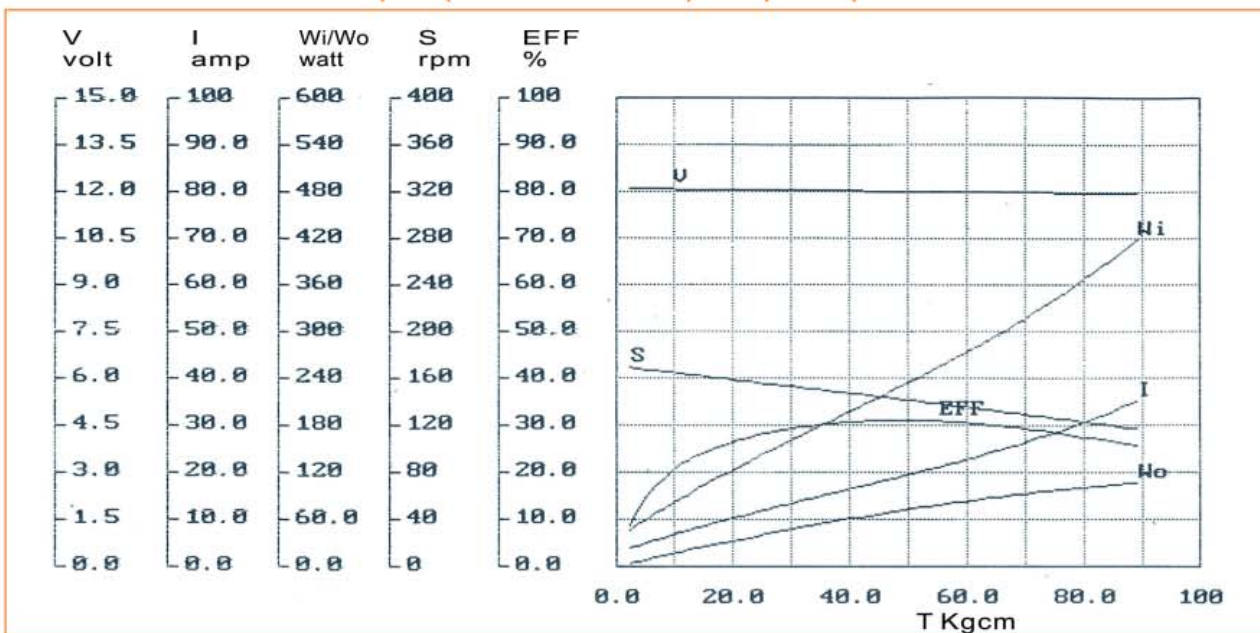
φ 80mm ,Brass gear  
Ratio (1/ i) : 1/6,1/10,1/15,1/30

### ANCN7152-E



N.W 3 KGS/PCS  
12 PCS A CTN/N.W.36KGS  
G.W.37KGS CFT.1.8

### 12VDC No Load 170rpm (RATIO : 1/15 )Torque/Speed Performance Curve



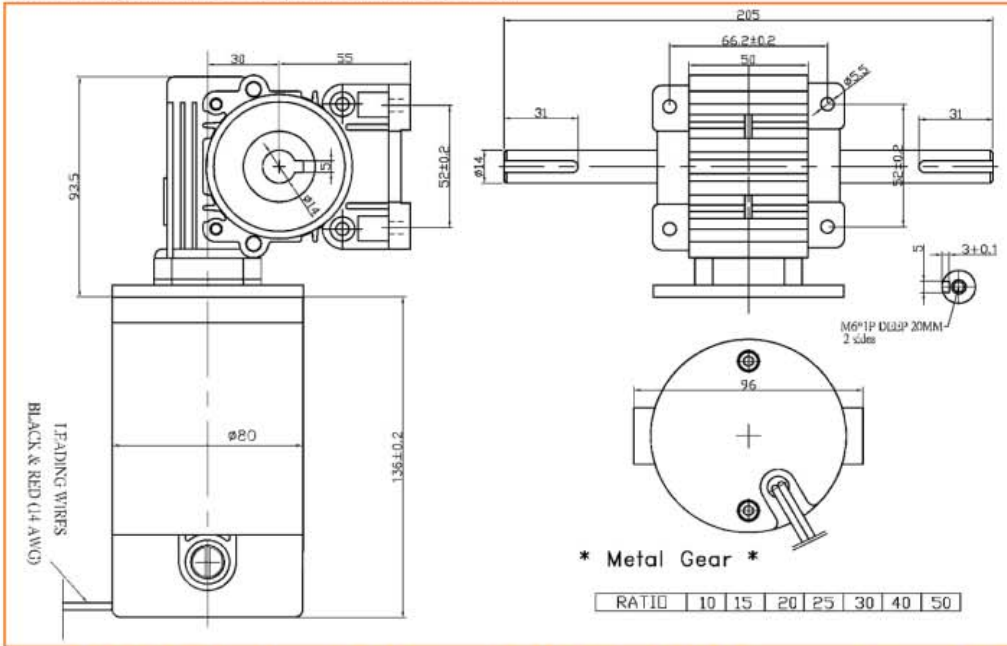
WORM GEAR

NO	R.P.M.	VOLT(V)	I (AMP)	INPUT(W)	TORQUE (KG-CM)	OUTPUT(W)	EFF (%)
1	169	12.10	3.97	48.0	2.30	4.0	8.3
2	162	12.06	8.12	97.9	14.90	24.8	25.3
3	155	12.04	12.19	146.8	25.50	40.6	27.7
4	147	12.04	16.51	198.8	39.90	60.2	30.3
5	140	12.01	20.50	246.2	52.60	75.6	30.7
6	133	11.99	24.13	289.3	65.30	89.1	30.8
7	125	11.98	29.02	347.7	77.80	99.8	28.7
8	117	11.93	35.17	419.6	90.40	108.5	25.9
9	118	11.94	33.89	404.6	83.70	101.3	25.0

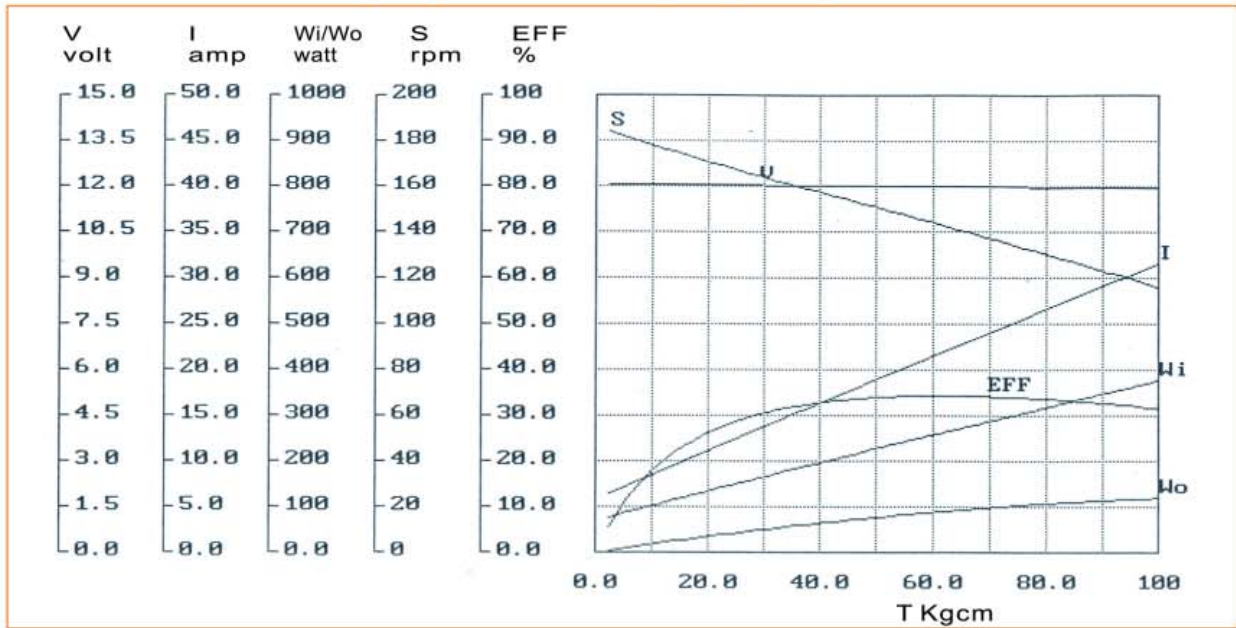


φ 80mm ,Brass gear  
 Ratio (1/ i) : 1/10- 1/50  
 With encoder/brake available  
 Left/Right side output shaft option

WG7152



12VDC No Load 185rpm (RATIO : 1/15) Torque/Speed Performance Curve



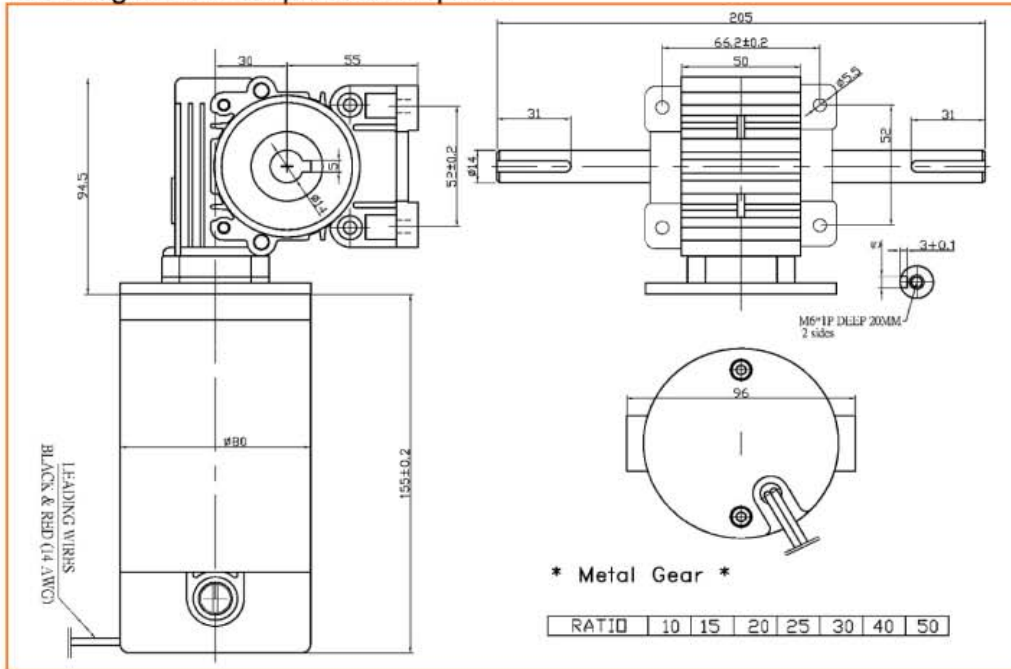
NO	R.P.M.	VOLT (V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	184	12.04	6.49	78.1	2.30	4.3	5.5
2	173	12.04	9.82	118.2	15.00	26.6	22.5
3	168	12.03	12.95	155.8	27.50	47.4	30.4
4	157	12.01	16.15	194.0	39.30	63.3	32.6
5	149	12.01	19.57	235.0	51.70	79.0	33.6
6	139	11.99	22.99	275.7	65.20	93.0	33.7
7	133	11.97	25.89	309.9	78.00	106.4	34.3
8	123	11.96	29.08	347.8	90.50	114.2	32.8
9	113	11.93	32.37	386.2	102.90	119.3	30.9

WORM GEAR

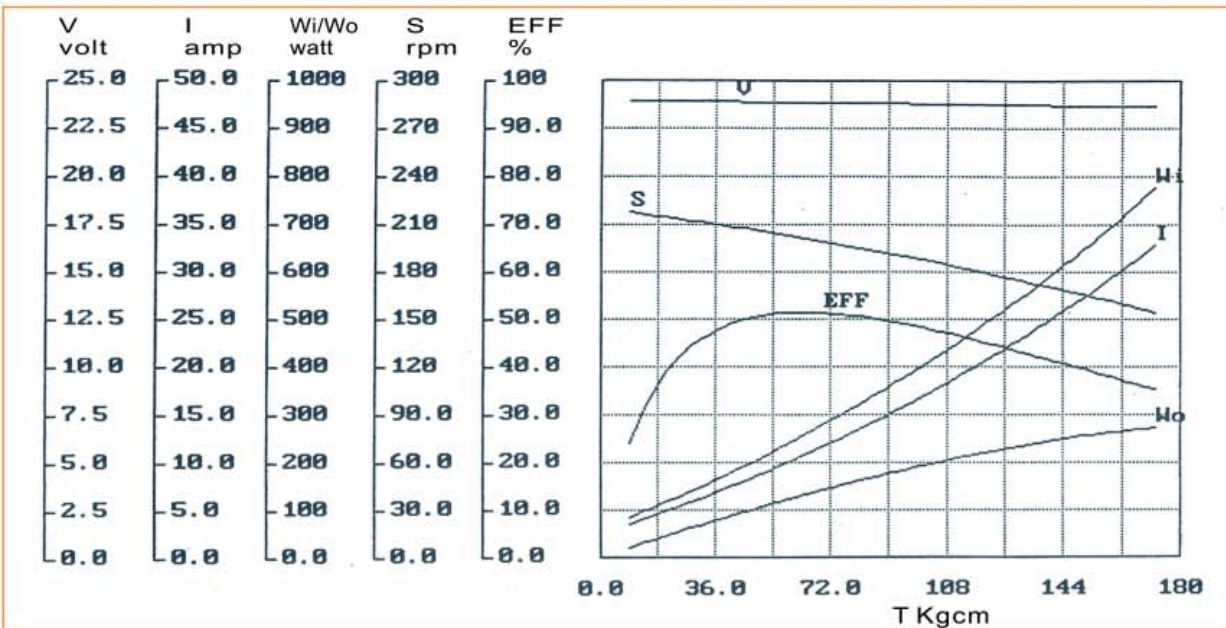


$\phi$  80mm , Brass gear  
 Ratio (1/ i) : 1/10- 1/50  
 With encoder/brake available  
 Left/Right side output shaft option

## WG7165



### 24VDC No Load 220rpm (RATIO : 1/15) Torque/Speed Performance Curve



WORM GEAR

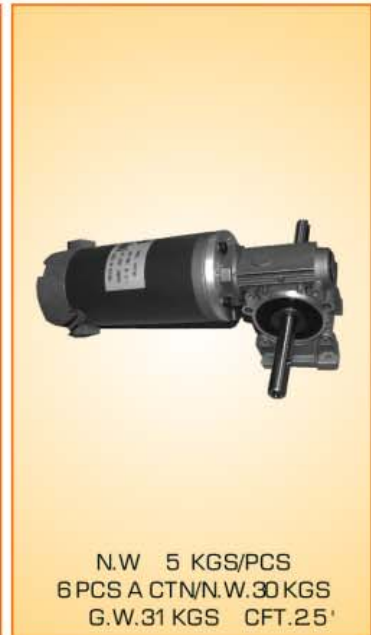
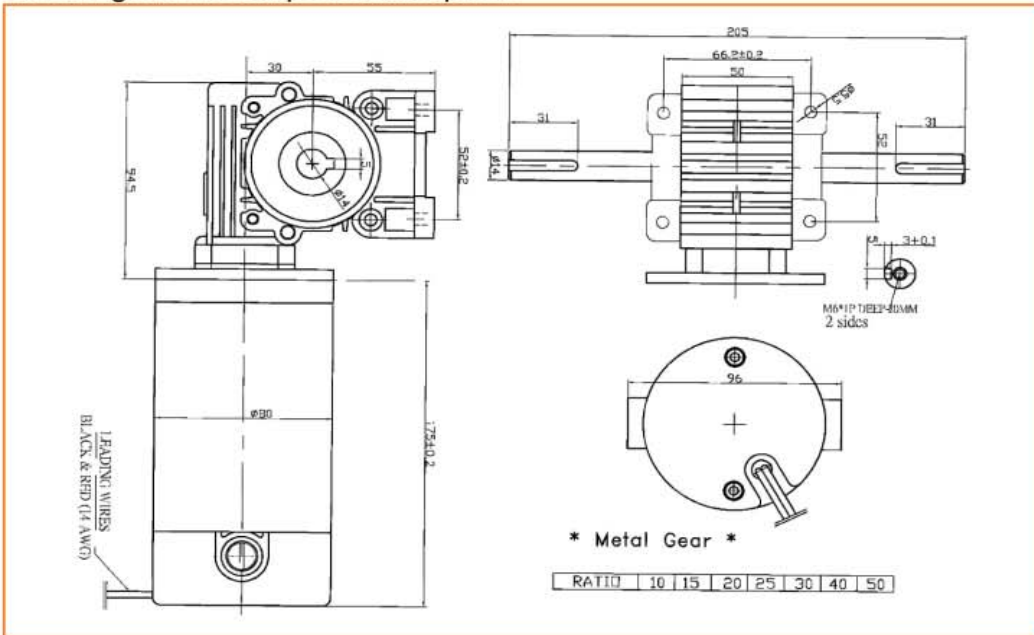
NO	R.P.M.	VOLT (V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	216.5	23.87	3.59	85.75	9.00	20.00	23.32
2	217.4	23.91	3.96	94.65	15.00	33.50	35.39
3	215.5	23.88	4.66	111.24	19.00	42.00	37.76
4	213.5	23.89	5.25	125.38	23.00	50.40	40.20
5	209.7	23.88	7.22	172.35	38.00	81.80	47.46
6	206.9	23.88	8.29	197.91	46.00	97.60	49.32
7	203.8	23.87	9.79	233.56	56.00	117.10	50.14
8	199.3	23.82	11.56	275.24	69.00	141.10	51.26
9	195.0	23.80	13.42	319.37	82.00	164.10	51.38
10	188.4	23.80	16.33	388.71	98.00	189.40	48.73
11	182.3	23.76	19.64	466.67	116.00	217.00	46.50
12	162.8	23.68	28.69	679.34	154.00	257.20	37.86
13	153.3	23.67	33.25	787.14	175.00	275.30	34.97



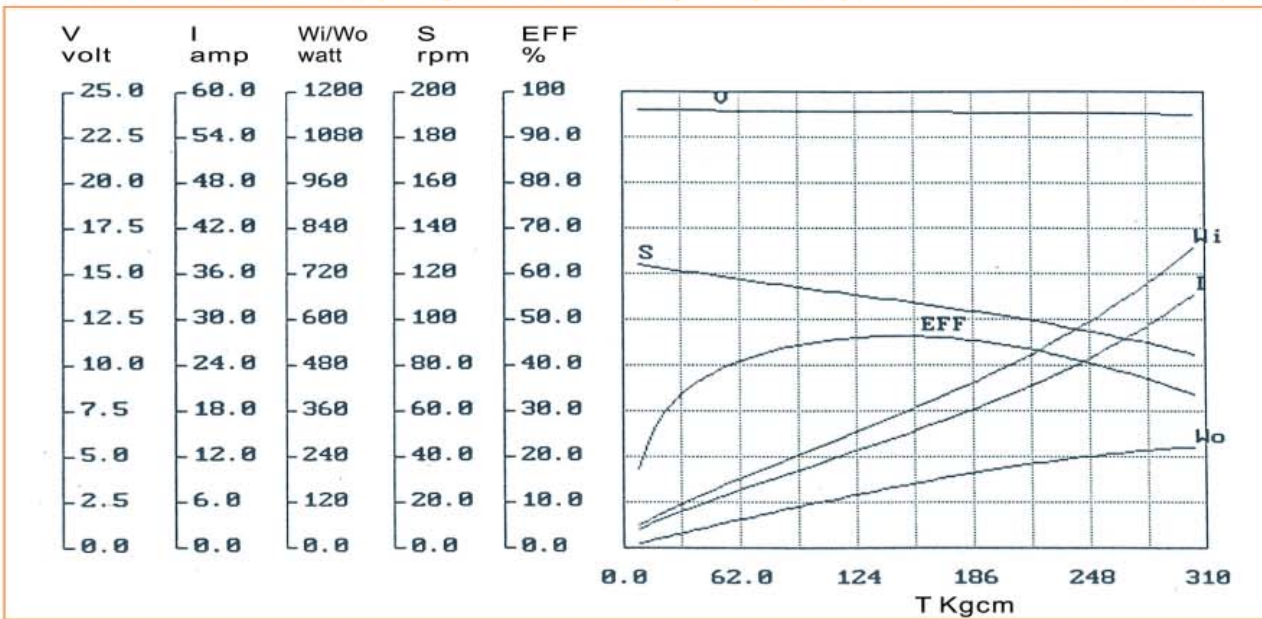


$\phi$  80mm ,Brass gear  
 Ratio (1/ i) : 1/10- 1/50  
 With encoder/brake available  
 Left/Right side output shaft option

## WG7185



### 24VDC No Load 125rpm (RATIO : 1/20) Torque/Speed Performance Curve



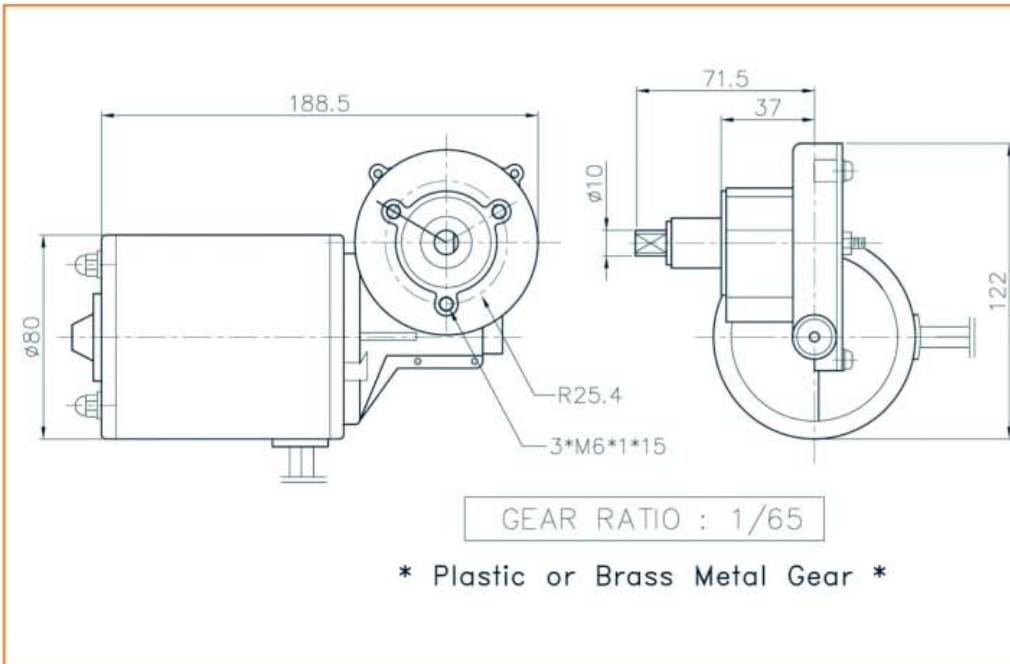
NO	R.P.M.	VOLT (V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	124.3	24.07	2.70	65.04	8.00	10.20	15.68
2	122.7	23.96	3.57	85.62	19.00	23.90	27.91
3	121.8	23.96	4.21	100.83	26.00	32.50	32.23
4	121.1	23.96	4.83	115.80	30.00	37.30	32.21
5	120.2	23.96	5.72	137.10	43.00	53.00	38.66
6	118.6	23.95	6.88	164.86	55.00	66.90	40.58
7	116.2	23.95	8.25	197.60	70.00	83.50	42.26
8	114.6	23.95	9.83	235.40	90.00	105.80	44.94
9	112.4	23.91	11.62	277.82	109.00	125.70	45.25
10	109.1	23.91	13.73	328.21	133.00	148.90	45.37
11	106.7	23.88	15.92	380.07	160.00	175.20	46.10
12	103.1	23.87	18.36	438.19	185.00	195.70	44.66
13	99.9	23.85	21.08	502.65	213.00	218.30	43.43
14	95.4	23.82	24.16	575.49	244.00	238.80	41.50
15	91.2	23.81	27.98	666.13	273.00	255.40	38.34
16	83.7	23.77	34.31	815.53	309.00	265.40	32.54

WORM GEAR

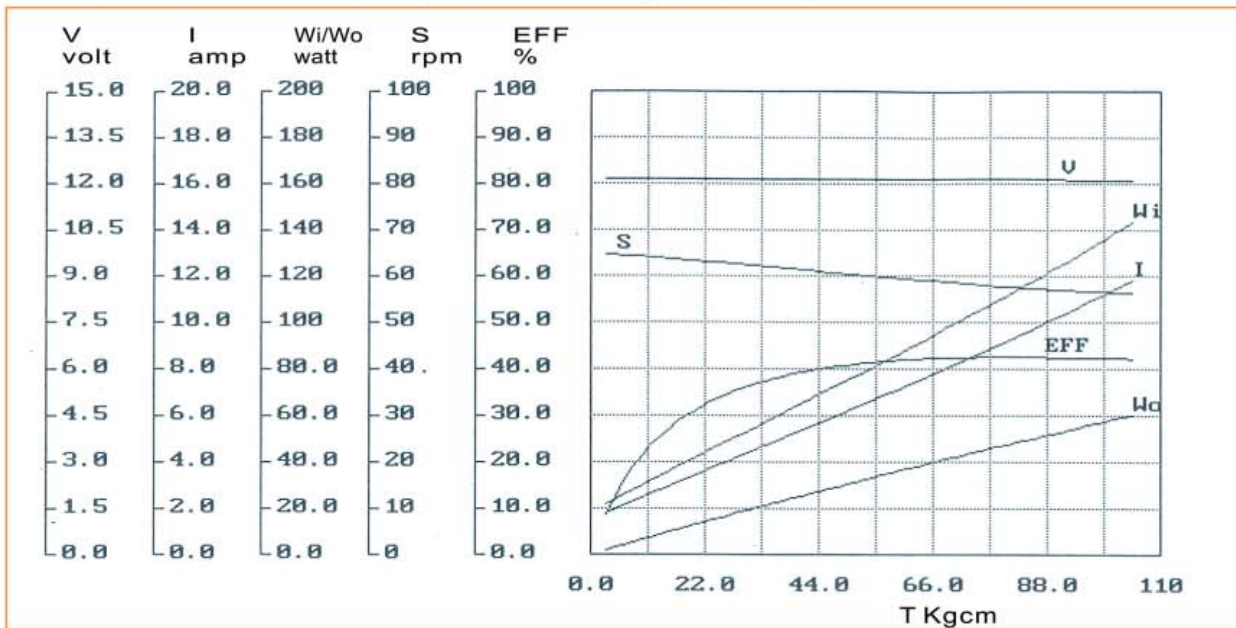


φ 80mm ,Brass/plastic gear  
Ratio (1/ i) : 1/65

## ASTG7256



### 12VDC No Load 65rpm (RATIO : 1/65) Torque/Speed Performance Curve



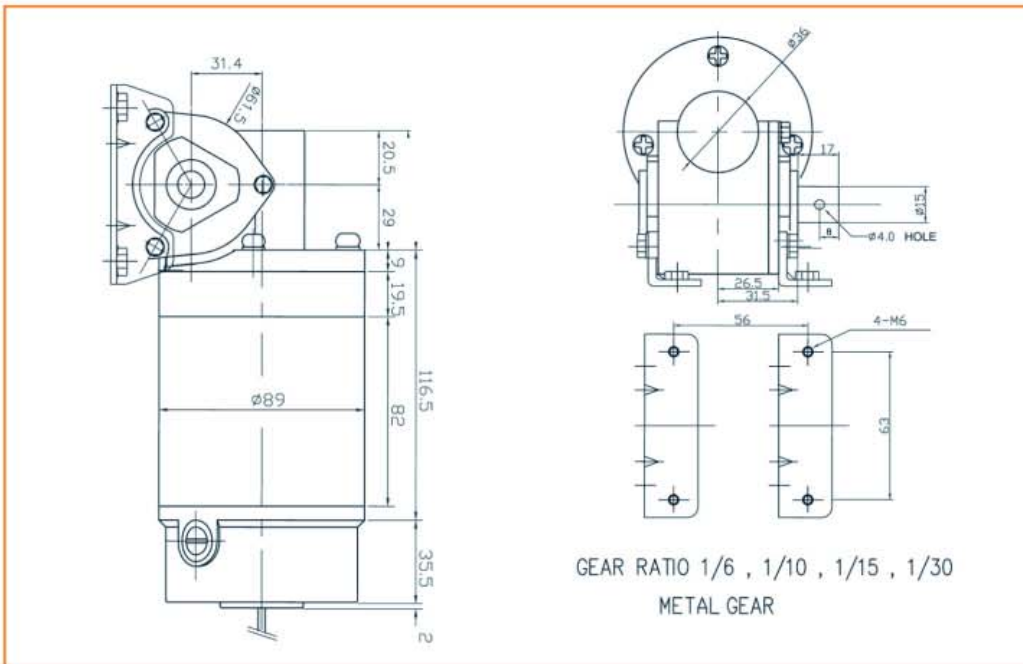
NO	R.P.M.	VOLT(V)	I(AMP)	INPUT(W)	TORQUE(KG-CM)	OUTPUT(W)	EFF (%)
1	65	12.16	1.82	22.1	2.90	1.9	8.6
2	63	12.16	3.22	39.2	17.60	11.4	29.1
3	62	12.13	4.60	55.8	32.80	20.9	37.5
4	61	12.13	6.07	73.6	48.10	30.1	40.9
5	59	12.13	7.56	91.7	63.00	38.1	41.5
6	59	12.13	8.94	108.4	78.30	47.4	43.7
7	55	12.12	10.60	128.0	93.30	52.6	43.1
8	57	12.13	10.23	124.1	90.30	52.8	42.5
9	57	12.12	12.01	145.8	106.10	61.0	41.0

WORM GEAR

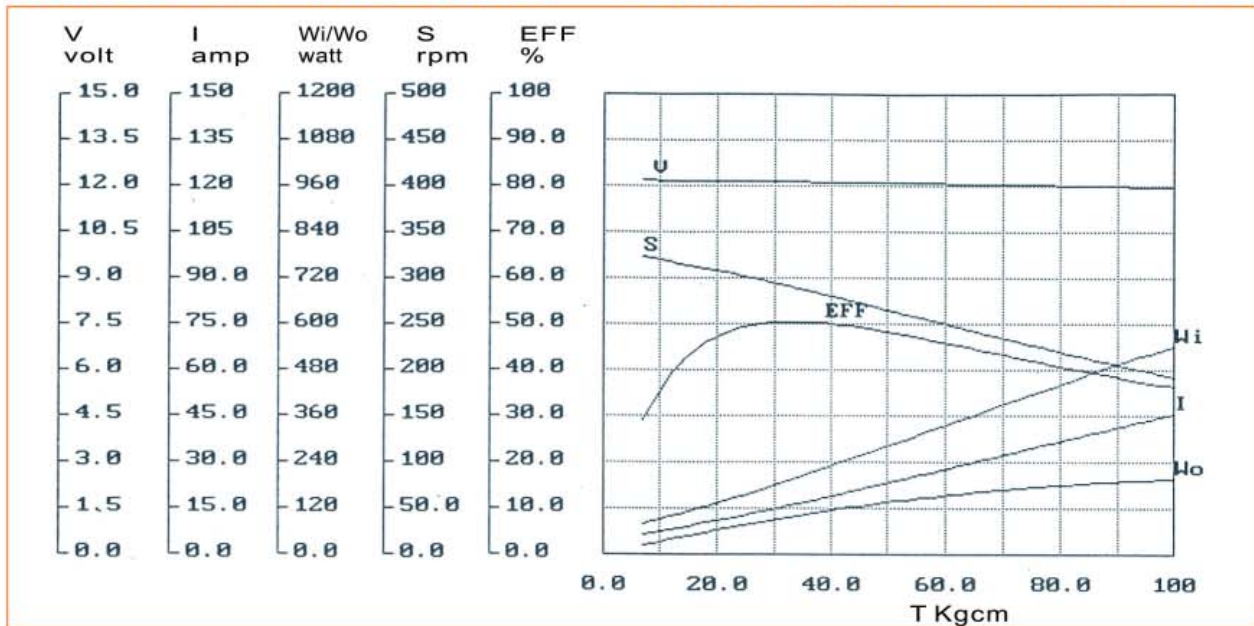


φ 89mm ,Brass gear  
 Ratio (1/i) : 1/6 , 1/10 , 1/15 , 1/30  
 Left/Right/Both Side output shaft option

G8156



12VDC No Load 325rpm (RATIO : 1/10) Torque/Speed Performance Curve



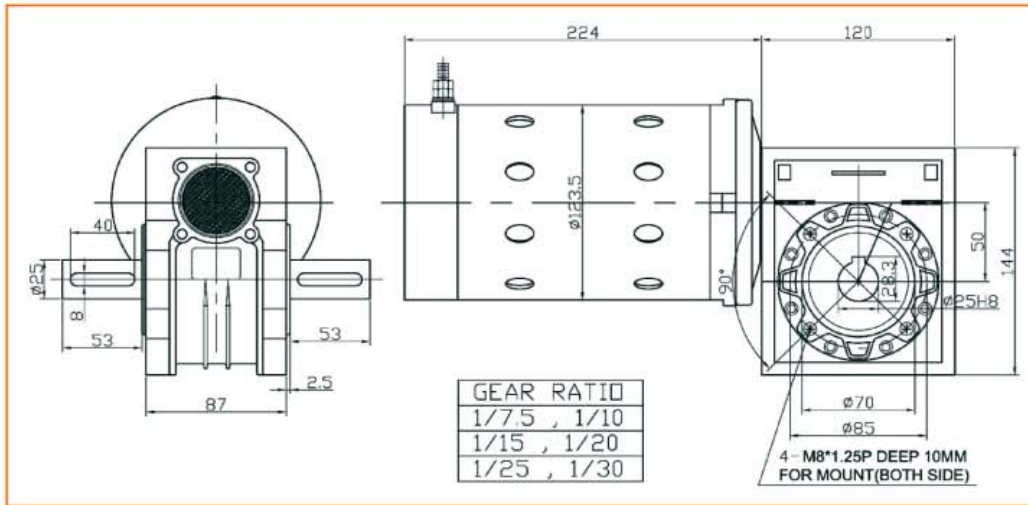
NO	R.P.M.	VOLT(V)	I (AMP)	INPUT(W)	TORQUE (KG-CM)	OUTPUT(W)	EFF (%)
1	323.6	12.19	6.33	77.16	7.00	23.20	30.07
2	316.0	12.16	8.00	97.26	11.00	35.70	36.71
3	313.5	12.16	9.54	115.96	15.00	48.20	41.57
4	309.7	12.16	10.90	132.58	20.00	63.60	47.97
5	302.1	12.13	12.90	156.45	25.00	77.50	49.54
6	281.6	12.13	18.44	223.67	39.00	112.70	50.39
7	269.5	12.10	21.55	260.74	46.00	127.20	48.78
8	256.1	12.10	25.85	312.83	56.00	147.10	47.02
9	240.8	12.05	31.05	374.23	67.00	165.50	44.22
10	215.7	12.01	37.71	452.98	82.00	181.50	40.07
11	189.6	11.93	46.26	552.01	102.00	198.40	35.94

WORM GEAR

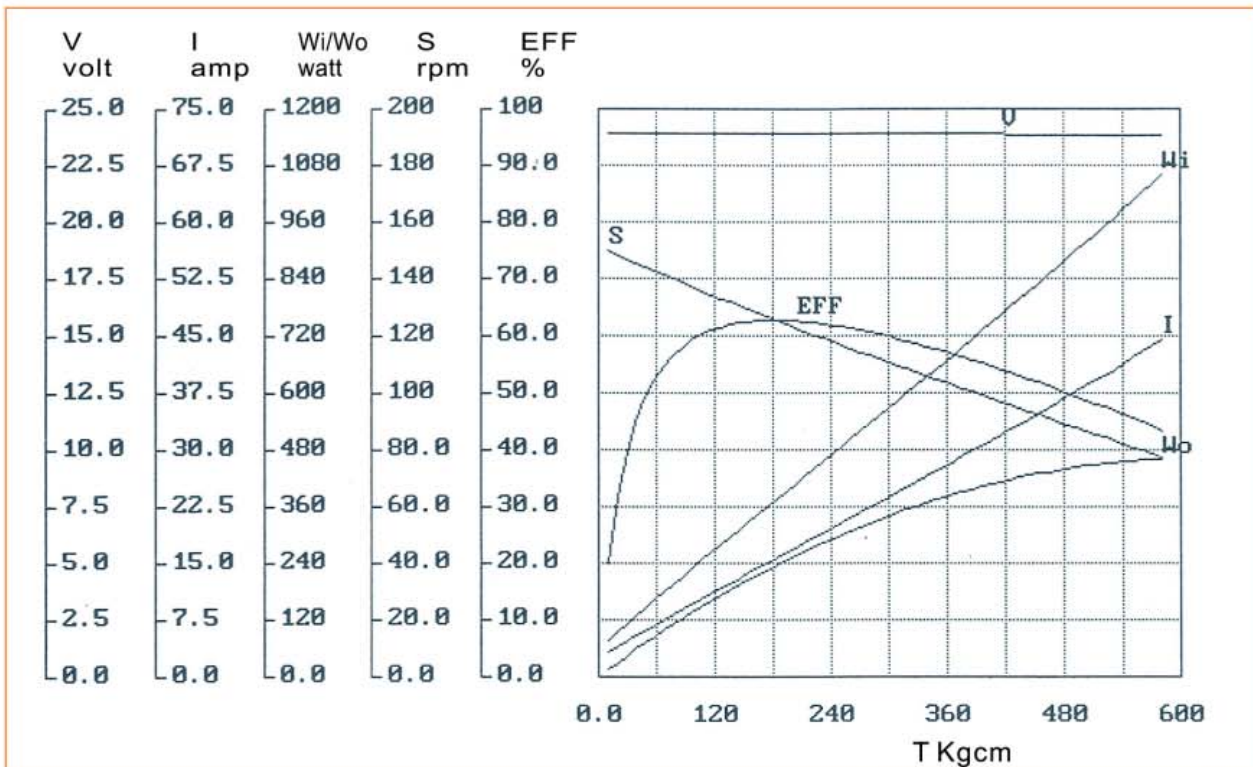


φ 124mm ,Brass gear  
 Ratio (1/ i) : 1/7.5 - 1/30  
 Stand : Option

WG1188



24VDC No Load 150rpm (RATIO : 1/10 )Torque/Speed Performance Curve



WORM GEAR

NO	R.P.M.	VOLT(V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	148.7	23.85	3.30	78.70	10.00	15.30	19.44
2	143.7	24.03	6.45	154.90	54.00	79.60	51.39
3	134.7	24.00	11.12	267.04	121.00	167.20	62.61
4	130.6	23.99	13.16	315.84	148.00	198.30	62.78
5	127.1	23.96	15.28	366.26	176.00	229.50	62.66
6	123.0	23.80	17.55	417.76	209.00	263.80	63.15
7	115.8	23.86	20.02	477.71	243.00	288.70	60.43
8	110.3	23.90	22.47	536.83	278.00	314.60	58.60
9	109.0	23.94	24.93	596.64	318.00	355.60	59.60
10	104.4	23.91	27.60	659.72	356.00	381.30	57.80
11	99.7	23.91	30.27	723.72	394.00	403.00	55.68
12	95.3	23.88	33.23	793.47	431.00	421.40	53.11
13	90.1	23.87	36.10	861.61	473.00	437.30	50.75
14	87.0	23.85	39.11	932.71	510.00	455.20	48.80
15	81.3	23.82	42.10	1002.70	550.00	458.80	45.76
16	75.3	23.81	45.20	1076.11	589.00	455.00	42.28

# SPUR GEARED MOTOR

SF5539



$\phi$  61mm

Ratio (1/ i) : 1/3 - 1/180

SP5539



$\phi$  61mm

Ratio (1/i) : 1/10.5

SF6651



$\phi$  70.5mm

Ratio (1/ i) : 1/3 - 1/180

SF7152



$\phi$  80mm

Ratio (1/ i) : 1/3 - 1/180

SF8156



$\phi$  89mm

Ratio (1/ i) : 1/3 - 1/180

CH8156



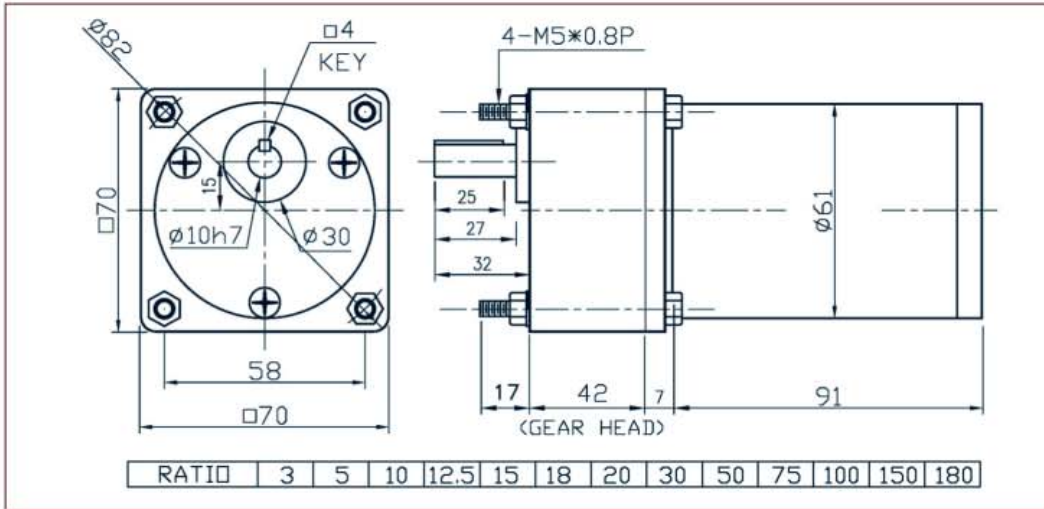
$\phi$  89mm

Ratio (1/ i) : 1/18 , 1/26 , 1/30

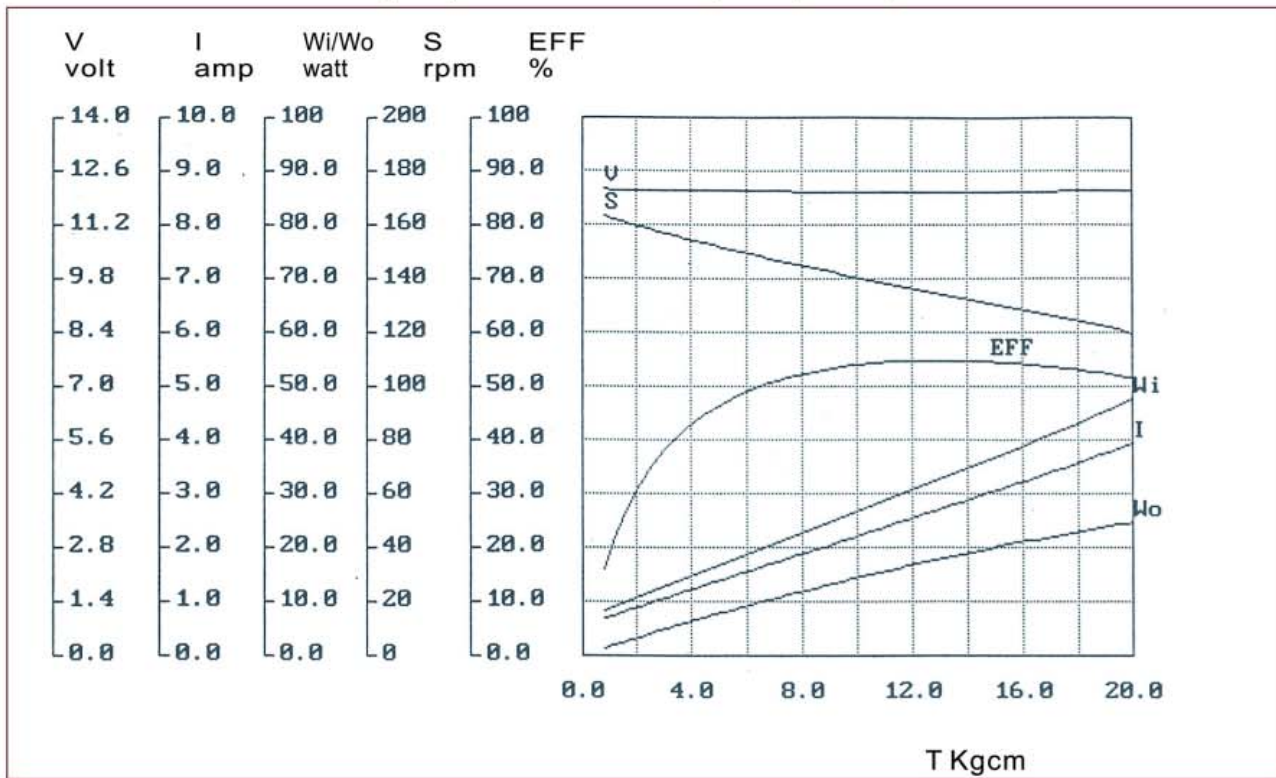


Motor dia  $\phi 61\text{mm}$   
 Motor original torque : 8 - 16 Ncm  
 Gear ratio (1/ i) : 1/3 - 1/180

## SF5539



### 12VDC No Load 165rpm (RATIO : 1/12.5) Torque/Speed Performance Curve



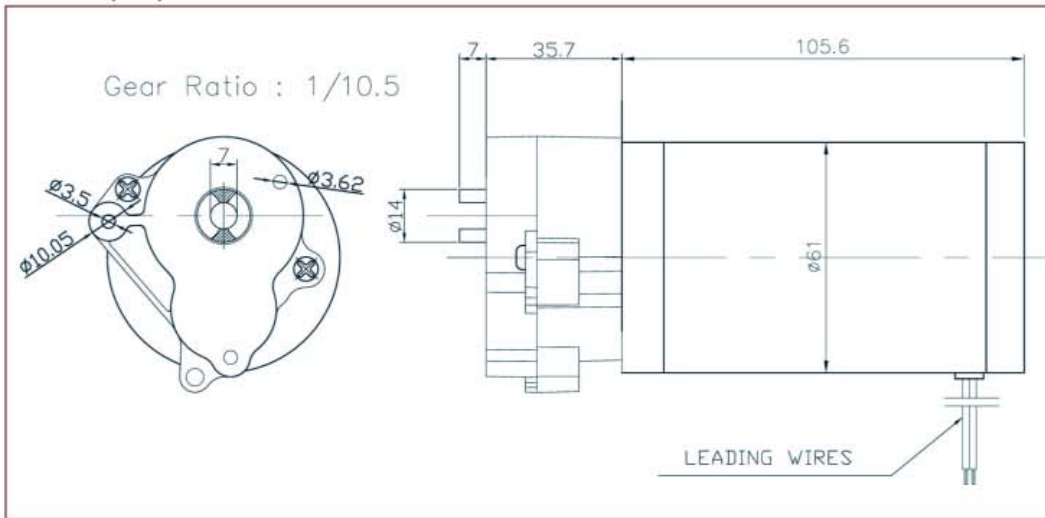
SPUR GEAR

NO	R.P.M.	VOLT(V)	I(AMP)	INPUT(W)	TORQUE(KG-CM)	OUTPUT(W)	EFF(%)
1	163	12.10	0.69	8.3	0.80	1.3	15.7
2	155	12.11	1.19	14.4	3.80	6.0	41.7
3	147	12.07	1.67	20.2	6.90	10.4	51.5
4	143	12.07	2.17	26.2	9.40	13.8	52.7
5	135	12.04	2.69	32.4	13.00	18.0	55.6
6	133	11.98	2.61	31.3	12.40	16.9	54.0
7	130	12.08	3.13	37.8	15.50	20.7	54.8
8	124	12.10	3.61	43.7	18.10	23.0	52.6
9	118	12.10	4.08	49.4	20.80	25.2	51.0

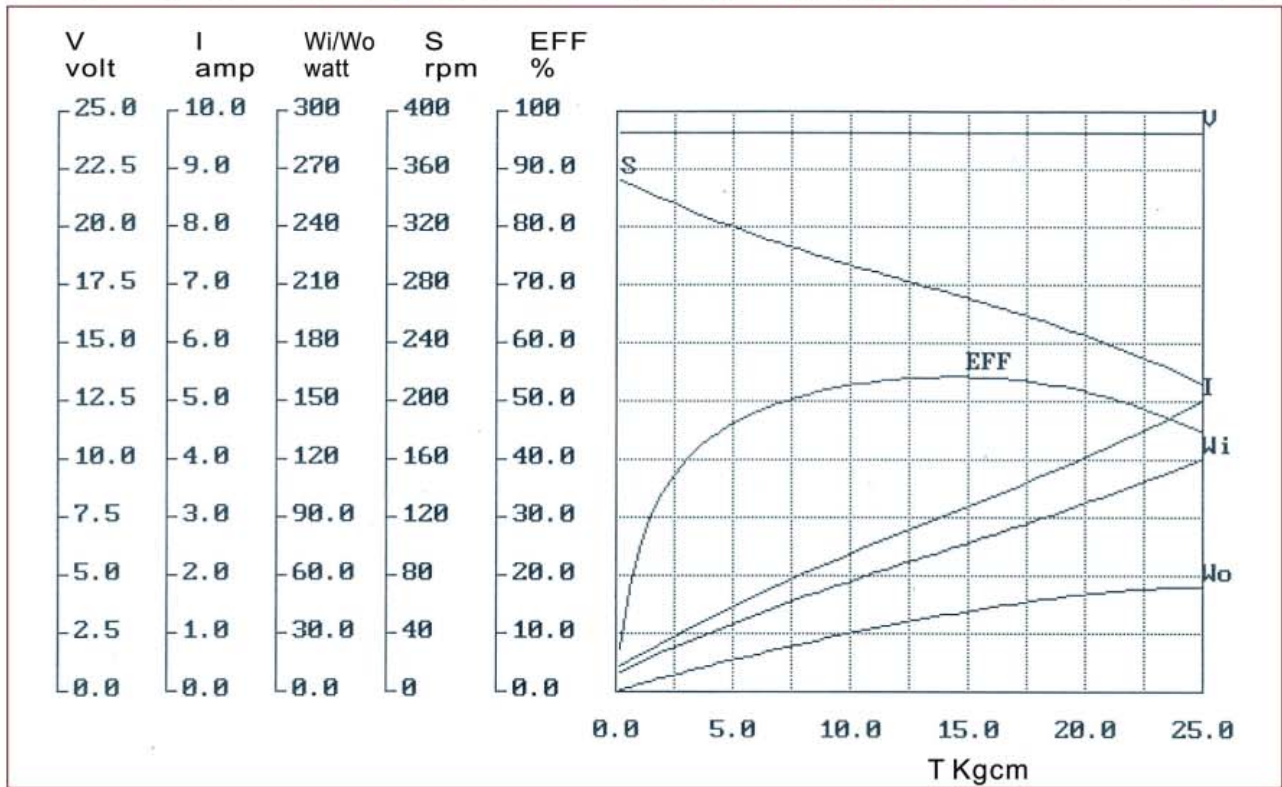


Motor dia  $\phi 61\text{mm}$   
Ratio (1/i) : 1/10.5

SP5539



24VDC No Load 355rpm (RATIO : 1/10.5) Torque/Speed Performance Curve



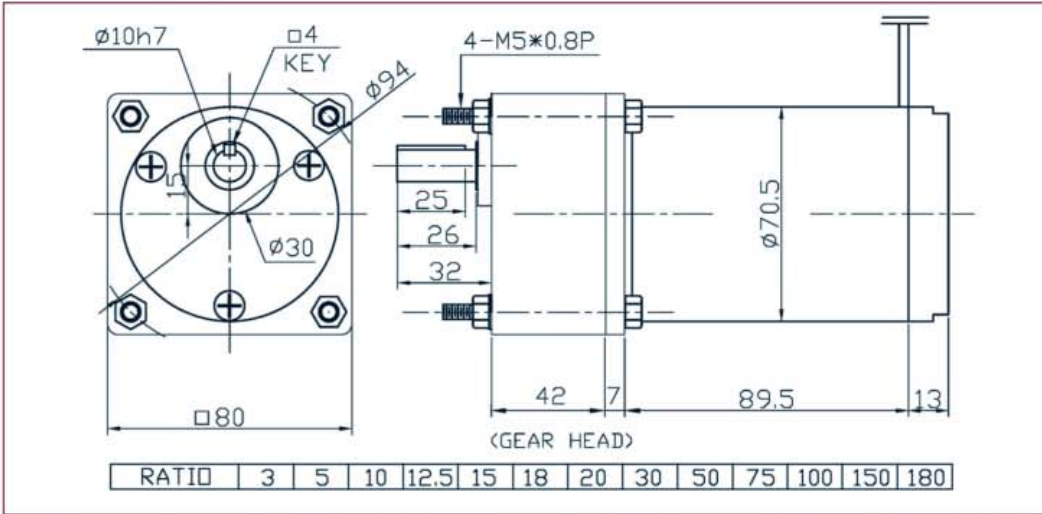
NO	R.P.M.	VOLT (V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	353	24.09	0.42	10.1	0.20	0.7	6.9
2	332	24.04	1.10	26.4	3.30	11.2	42.4
3	315	24.06	1.65	39.7	5.90	19.1	48.1
4	297	24.06	2.23	53.7	8.60	26.2	48.8
5	294	24.06	2.39	57.5	9.50	28.7	49.9
6	287	24.06	2.48	59.7	11.20	33.0	55.3
7	286	24.06	2.67	64.2	12.20	35.8	55.8
8	281	24.05	2.82	67.8	13.00	37.5	55.3
9	275	24.07	2.95	71.0	13.90	39.2	55.2
10	274	24.11	3.17	76.4	14.80	41.6	54.5
11	263	24.09	3.47	83.6	16.60	44.8	53.6
12	247	24.11	3.93	94.8	19.20	48.7	51.4
13	240	24.09	4.25	102.4	21.00	51.7	50.5
14	228	24.10	4.57	110.1	22.70	53.1	48.2
15	215	24.11	4.84	116.7	24.40	53.8	46.1
16	212	24.10	5.10	122.9	25.30	55.0	44.8

SPUR GEAR

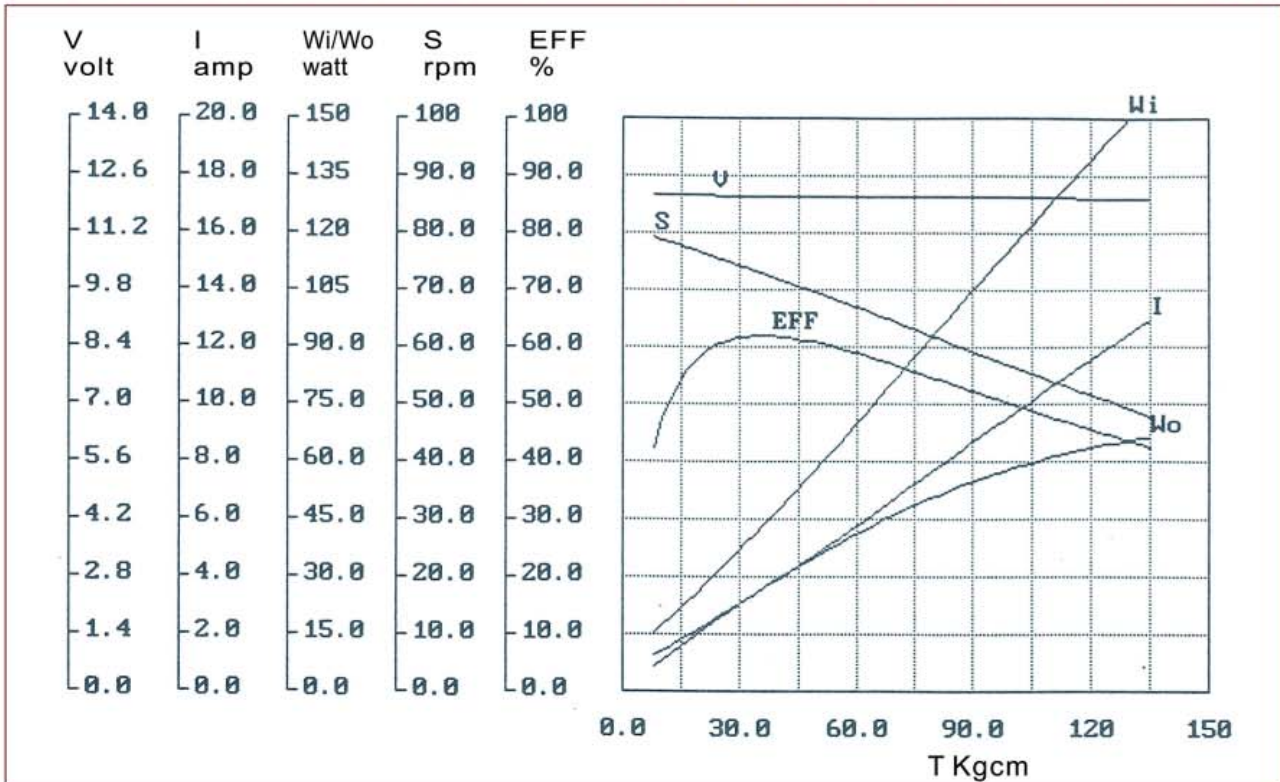


Motor dia  $\phi$  70.5mm  
 Motor original torque : 15 - 28 Ncm  
 Gear ratio (1/ i) : 1/3 - 1/180

## SF6551



### 12VDC No Load 80rpm (RATIO : 1/30) Torque/Speed Performance Curve



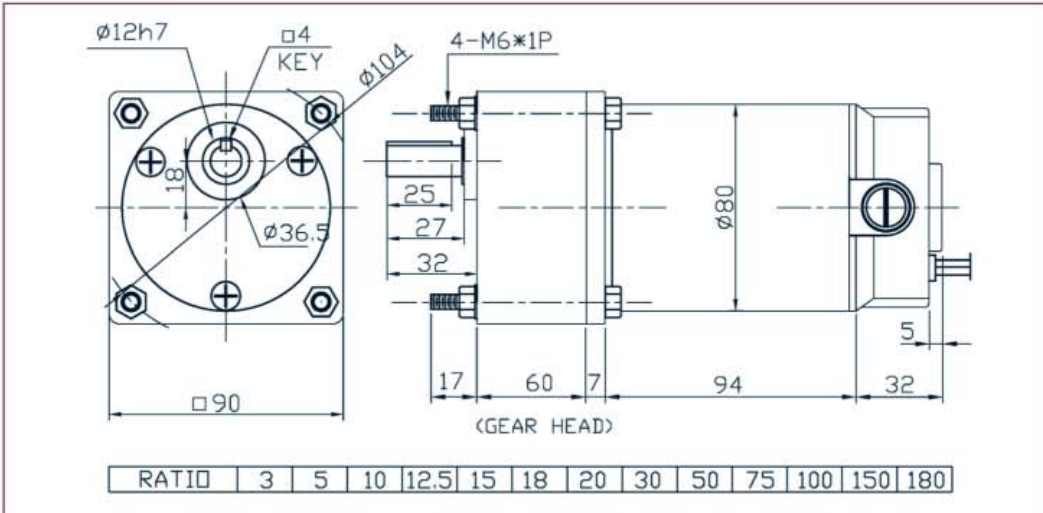
NO	R.P.M.	VOLT (V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	78.7	12.13	1.38	16.78	8.00	6.50	38.74
2	78.6	12.13	1.67	20.23	16.00	12.90	63.77
3	75.9	12.10	2.47	29.93	22.00	17.10	57.13
4	74.1	12.10	3.07	37.12	30.00	22.80	61.42
5	72.4	12.10	3.58	43.33	36.00	26.70	61.62
6	71.2	12.10	4.49	54.35	46.00	33.60	61.82
7	67.7	12.09	5.37	64.94	55.00	38.20	58.82
8	65.0	12.09	6.62	79.99	69.00	46.00	57.51
9	60.4	12.07	8.15	98.42	84.00	52.10	52.94
10	56.3	12.07	9.64	116.30	101.00	58.30	50.13
11	52.4	12.07	11.49	138.70	119.00	64.00	46.14
12	47.0	12.04	13.13	158.16	137.00	66.10	41.79



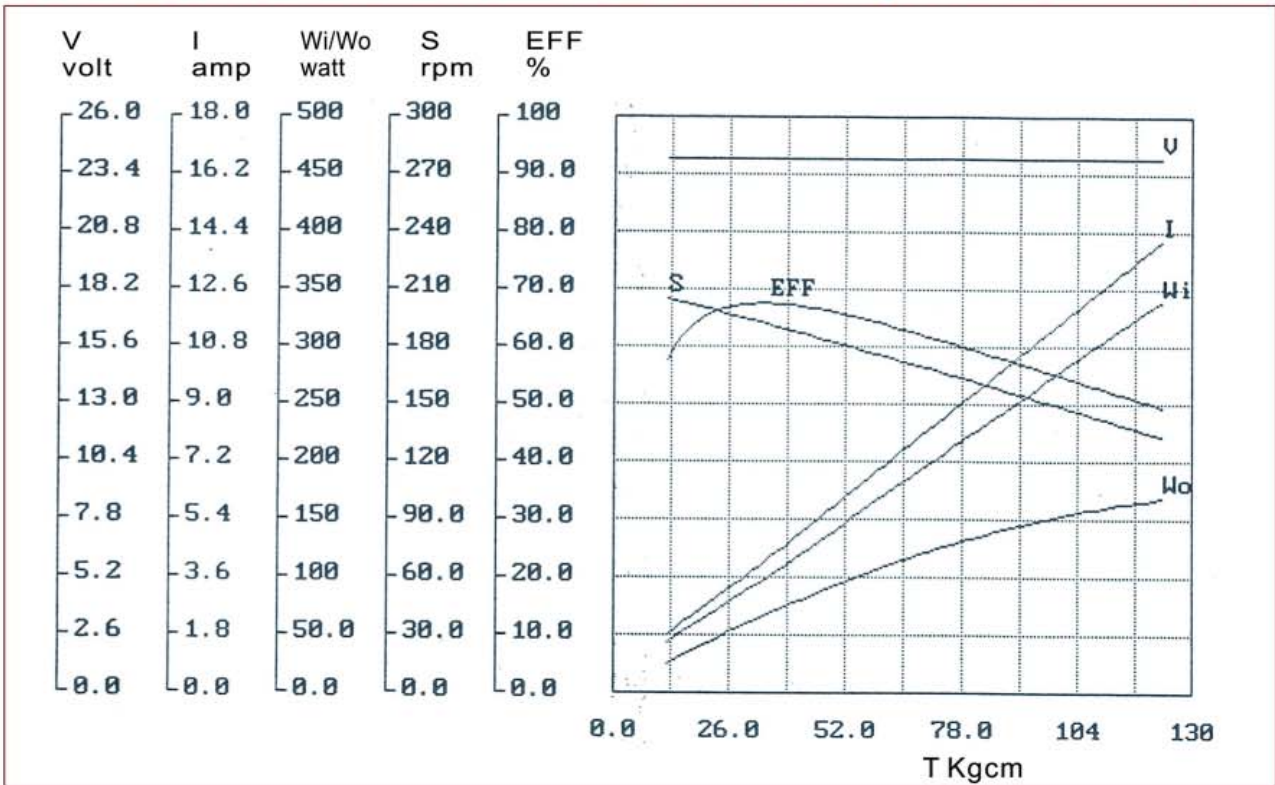


Motor dia  $\phi$  80mm  
 Motor original torque : 26 - 36 Ncm  
 Gear ratio (1/ i) : 1/3 - 1/180

## SF7152



### 24VDC No Load 210rpm (RATIO : 1/12.5) Torque/Speed Performance Curve



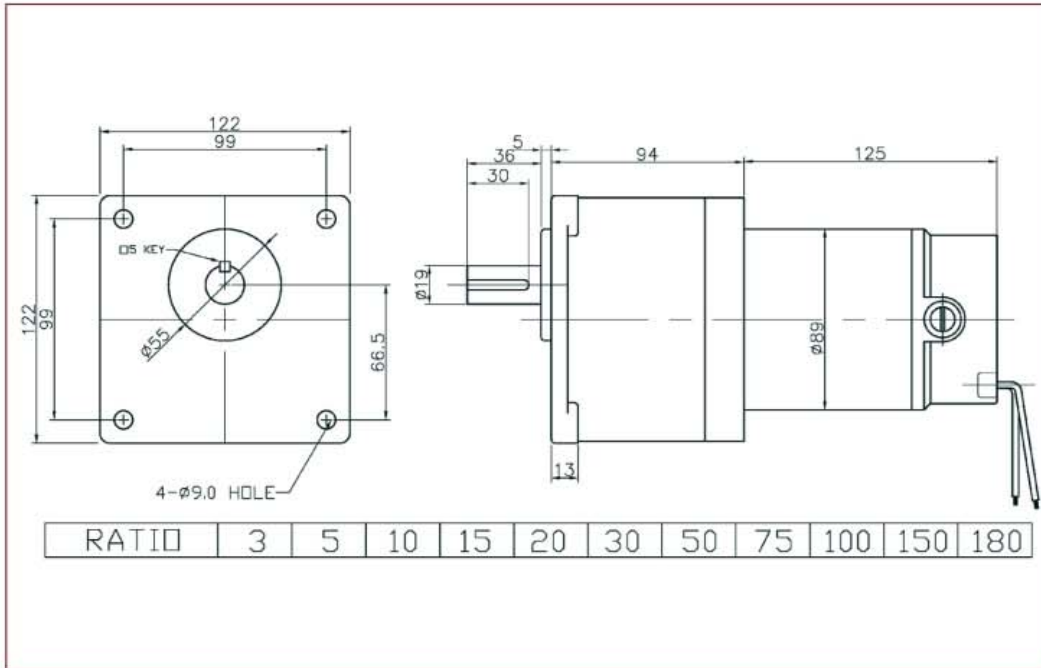
NO	R.P.M.	VOLT(V)	I(AMP)	INPUT(W)	TORQUE(KG-CM)	OUTPUT(W)	EFF(%)
1	206.1	24.11	1.76	42.38	12.00	25.40	59.93
2	202.7	24.11	2.21	53.37	16.00	33.30	62.39
3	198.8	24.10	2.89	69.63	22.00	44.90	64.48
4	196.4	24.14	3.43	82.71	27.00	54.40	65.77
5	191.1	24.13	4.15	100.15	35.00	68.60	68.50
6	186.4	24.12	5.02	121.12	42.00	80.30	66.30
7	180.7	24.11	6.05	145.99	51.00	94.60	64.80
8	174.2	24.12	7.24	174.71	63.00	112.60	64.45
9	166.8	24.10	8.70	209.67	76.00	130.10	62.05
10	155.2	24.09	10.51	253.11	90.00	143.30	56.62
11	143.3	24.06	12.27	295.30	106.00	155.80	52.76
12	132.0	24.06	14.26	343.08	125.00	169.30	49.35

SPUR GEAR

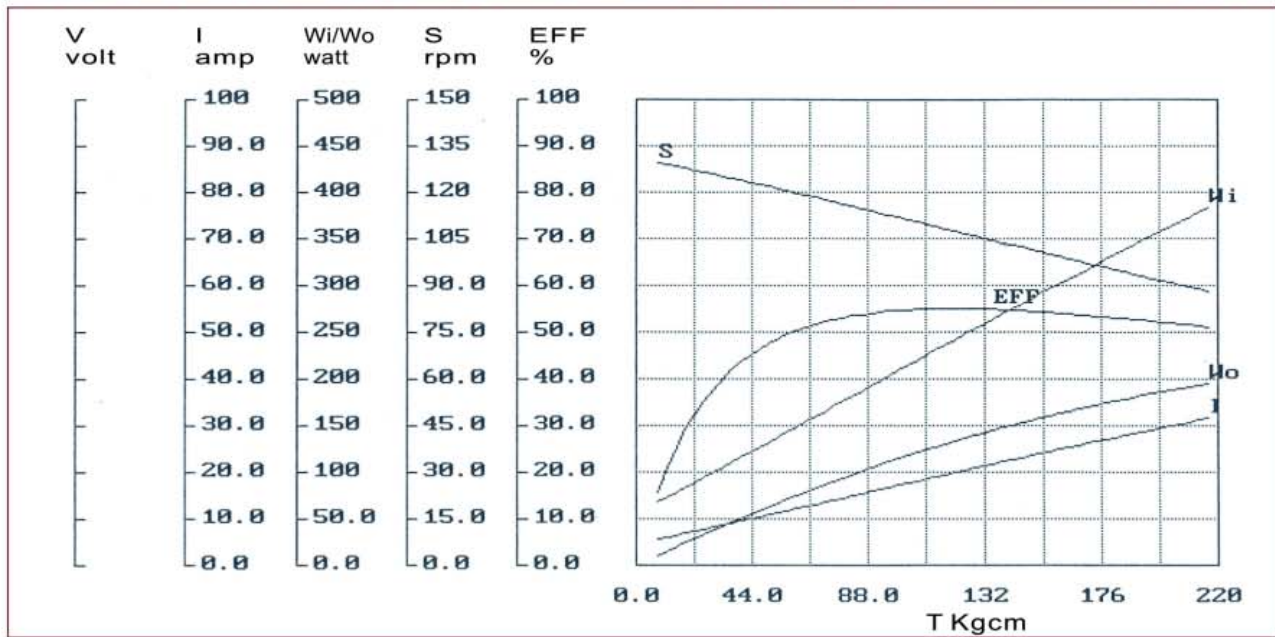


Motor dia  $\phi$  89mm  
 Motor original torque : 45 - 80 Ncm  
 Gear ratio (1/ i) : 1/3 - 1/180

## SF8156



### 12VDC No Load 130rpm (RATIO : 1/20) Torque/Speed Performance Curve



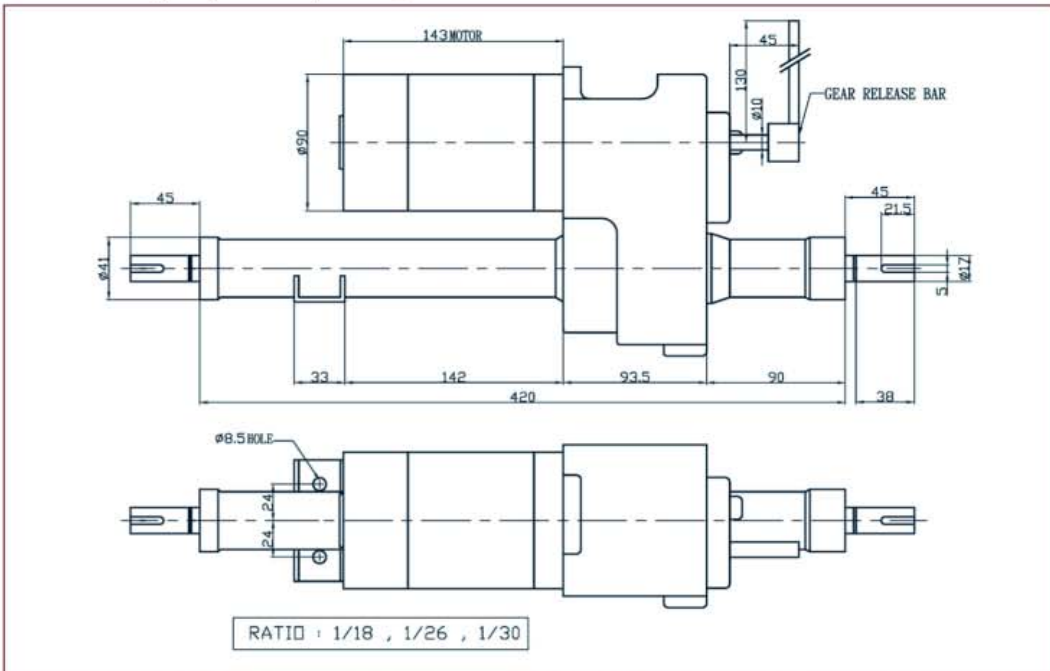
NO	R.P.M.	VOLT (V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	129.2	12.22	6.01	73.47	8.00	10.60	14.43
2	128.8	12.21	6.08	74.21	15.00	19.80	26.68
3	128.7	12.22	6.35	77.55	17.00	22.40	28.88
4	125.6	12.22	8.23	100.51	31.00	39.90	39.70
5	121.3	12.19	11.04	134.59	51.00	63.50	47.18
6	118.8	12.19	12.82	156.21	63.00	76.80	49.16
7	115.7	12.17	14.53	176.86	78.00	92.60	52.36
8	109.7	12.16	18.78	228.36	113.00	127.20	55.70
9	106.0	12.13	21.04	255.25	133.00	144.60	56.65
10	101.2	12.13	23.66	286.94	151.00	156.80	54.65
11	96.5	12.13	26.49	321.29	170.00	168.30	52.38
12	92.1	12.10	29.00	350.94	193.00	182.40	51.97
13	87.9	12.10	31.89	385.89	220.00	198.40	51.41

SPUR GEAR

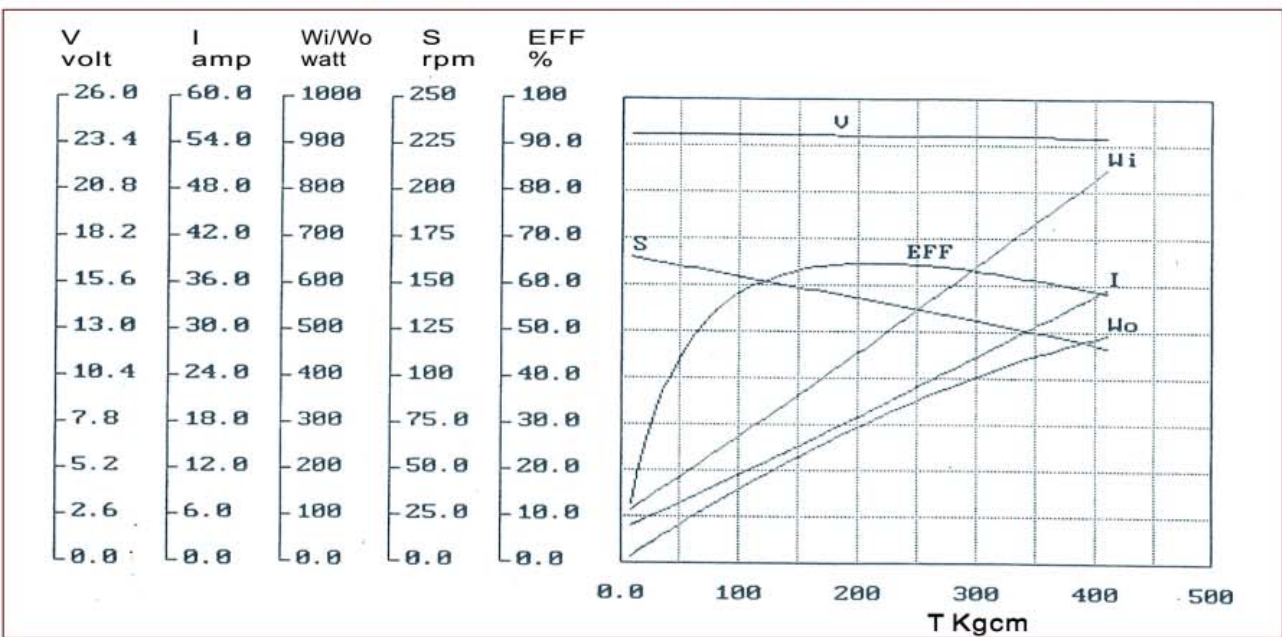


Motor dia  $\phi$  89mm  
 Motor original torque : 45 - 80 Ncm  
 Gear ratio (1/ i) : 1/18 , 1/26 , 1/30

## CH8156



### 24VDC No Load 165rpm (RATIO : 1/18) Torque/Speed Performance Curve

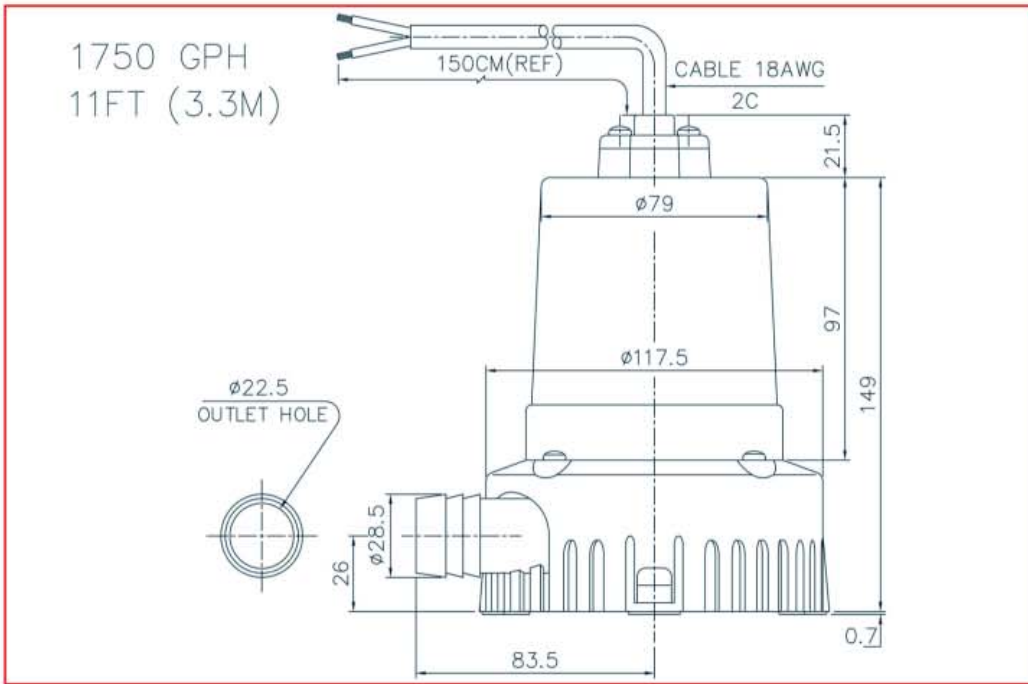


NO	R.P.M.	VOLT(V)	I (AMP)	INPUT (W)	TORQUE (KG-CM)	OUTPUT (W)	EFF (%)
1	164.3	24.02	5.01	120.54	8.50	15.10	12.40
2	164.2	24.02	5.33	128.05	20.00	33.70	26.32
3	158.1	24.00	9.06	217.42	71.00	115.20	52.99
4	153.4	23.99	12.26	294.26	111.00	174.70	59.37
5	150.3	23.99	14.15	339.57	136.00	209.70	61.75
6	147.5	23.97	16.15	387.29	163.00	246.70	63.70
7	143.8	23.96	18.37	440.00	191.00	281.80	64.05
8	140.2	23.94	20.65	494.37	224.00	320.80	64.69
9	136.8	23.93	23.10	552.78	253.00	355.10	64.24
10	132.6	23.92	25.63	613.08	287.00	390.50	63.69
11	129.3	23.90	28.10	671.51	317.00	420.50	62.62
12	124.7	23.89	30.71	733.63	351.00	449.10	61.22
13	120.9	23.86	33.28	793.89	382.00	473.80	59.68
14	115.8	23.85	36.02	858.97	417.00	495.40	57.67

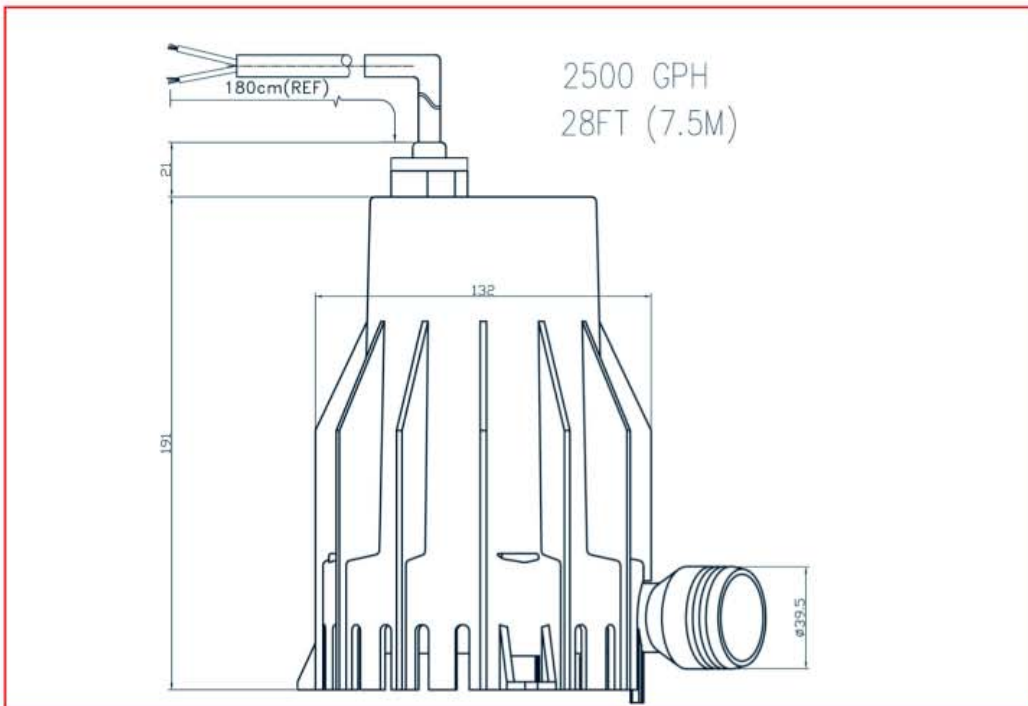
SPUR GEAR



BPEX1750



BPEX3000



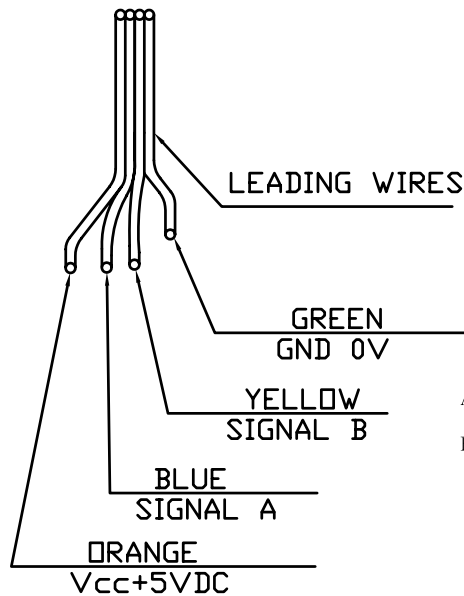
PUMP SPEC	BPEX1750	BPEX3000
POWER SOURCE	DC 12V/ 24V	DC 12V/24V
DELIVERY VOLUME	<b>1750 GPH</b>	<b>2500 GPH</b>
OUTLET DIA	1"	1 1/2"
CURRENT	<b>10A(12V)/5A(24V)</b>	<b>21A(12V)/10.5A(24V)</b>
DELIVERY HEAD	11FT(3.3M)	25FT(7.5M)

PUMP

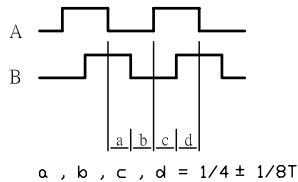
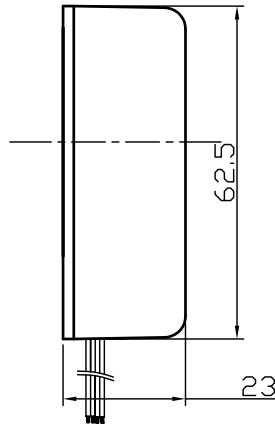
## ENCODER OUTLINE

### MAGNETIC Encoder Spec

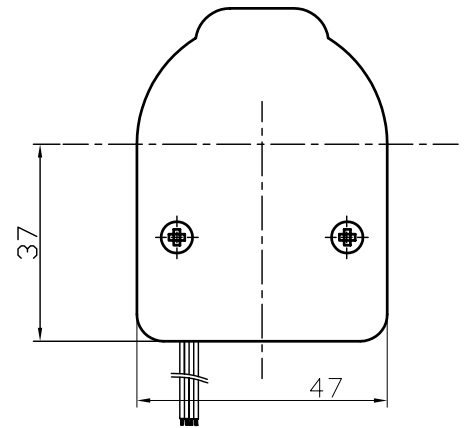
#### CONNECTING DETAIL



#### SIDE VIEW



#### TOP VIEW

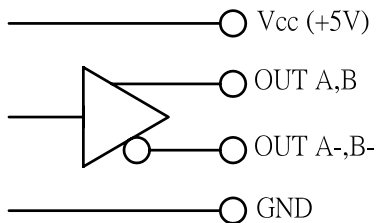


#### CONNECTING DETAIL

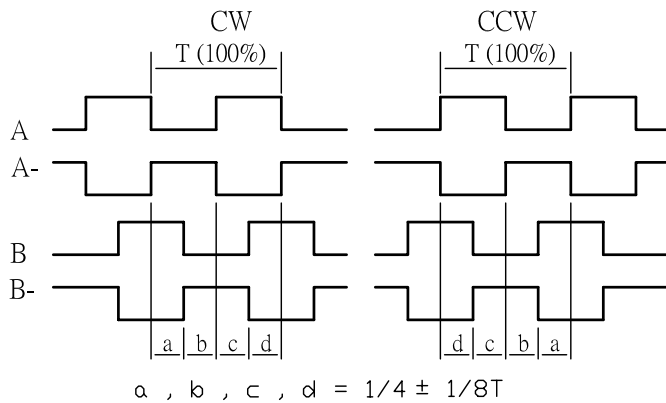
GREEN	GND 0V
YELLOW	SIGNAL B
BLUE	SIGNAL A
ORANGE	Vcc +5VDC

18 PULSE /RPM 2 CHANNEL , 4 PULSE /RPM 2 CHANNEL FOR OPTION

### SCHEMATIC DIAGRAM



#### OUTPUT WAVE FORM



### OPTICAL Encoder SPEC

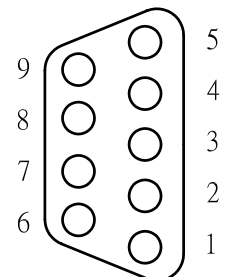
#### SPECIFICATION OF ENCODER

Power supply	DC 5V (fixed)
Power consumption	< 80 mA
Output Mode	Line Driver
Pulse Number	500 PULSE 2 CHANNEL
Frequency Response	25 KHz Max.

#### Connection Detail

1.	Vcc (+5V)
2.	A+
3.	B+
4.	Z+ (OPTION)
5.	GND (0V)
6.	A-
7.	B-
8.	GND (0V)
9.	Z+(OPTION)

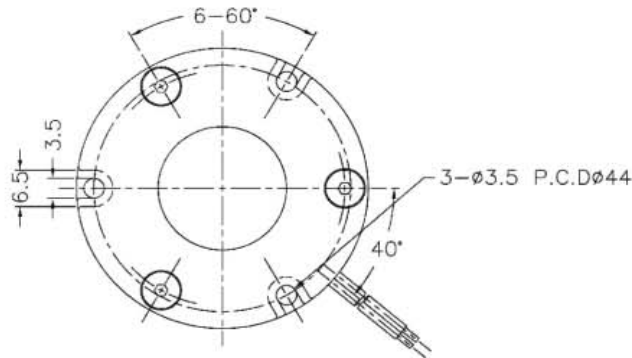
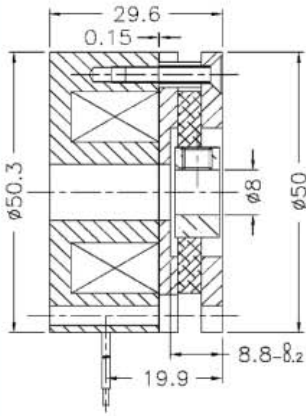
#### Connector DB9 Female



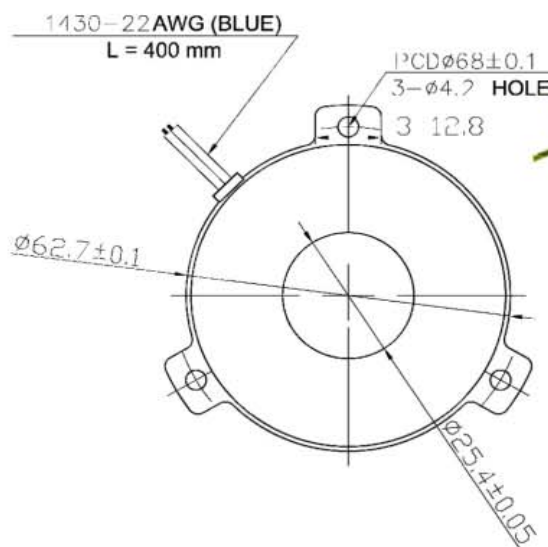
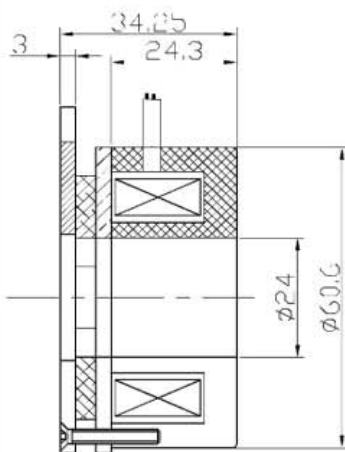
KING RIGHT MOTOR



### BRAKE 50



### BRAKE 63



BRAKE

# DC MOTOR SPEED CONTROLLER

ITEM CT-D05(12V)  
ITEM CT-D10(24V)



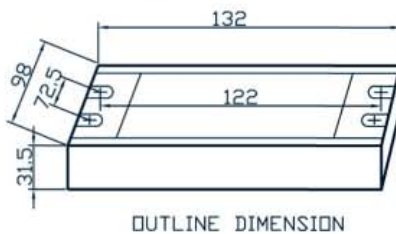
DC 12V or 24V

Adaptive motor :

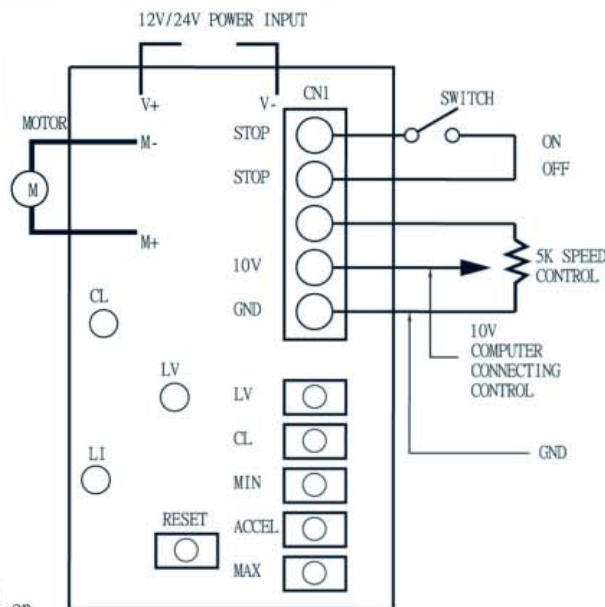
12V under 1/2 Hp  
24V under 1 Hp

Control method :

- 1.PWM Drive Control
- 2.computer connecting control



OUTLINE DIMENSION



## CONNECTING DETAIL

1. MIN SPEED : 0-30%
2. MAX SPEED : 50-100%
3. CN1 (COMPUTER CONNECTING)  
0-10V MOTOR SPEED CONTROL  
MAX & MIN Unavailable  
I/P Pin 4:10V ,O/P Pin 5:GND
4. CN1(START/STOP):PIN1&PIN2
5. CL(CURRENT LIMIT) :  
Motor rated current 150%-200%  
Automatically cut off the Voltage  
when Overload current 3 Sec.
6. LV : Set Airready,Need not adjust
7. Accel( Acceleration time) : 0.5-4 sec.
8. Reset : When overload current,CL light on,  
Motor voltage Lockout,Push RESET  
button could release the situation.

## A. CONTROLLING FUNCTION

- 1.The motor is controlled by high frequency pulse to reduce the loss of electricity rate.
- 2.Using starting buffer to prevent the motor and connecting gadget be broken.
- 3.Raising the output efficiency to reduce the loss of the power and the temperature rising.
- 4.Automatic compensated when motor is on loaded that makes hi torque on the motor even running speed low.
- 5.Current could be set to prevent that the motor be broken by over load.
- 6.Highest and lowest speed could be set up.
- 7.Battery electricity weak indication.
- 8.According to the user's requirements to set the acceleration start.

# DC MOTOR SPEED CONTROLLER

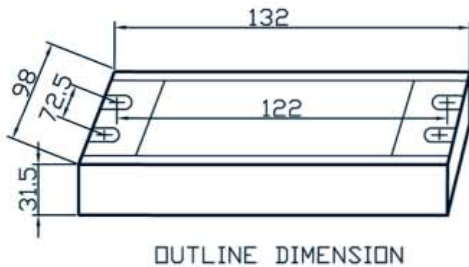
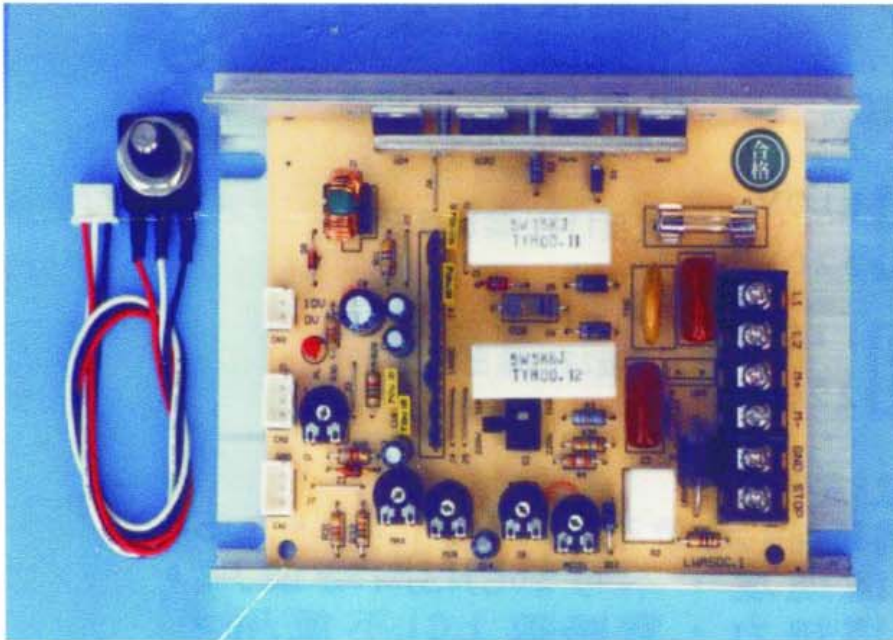
ITEM CT-A04

INPUT VOLTAGE  
AC 110V or 220V

OUTPUT VOLTAGE  
DC 90V or 180V

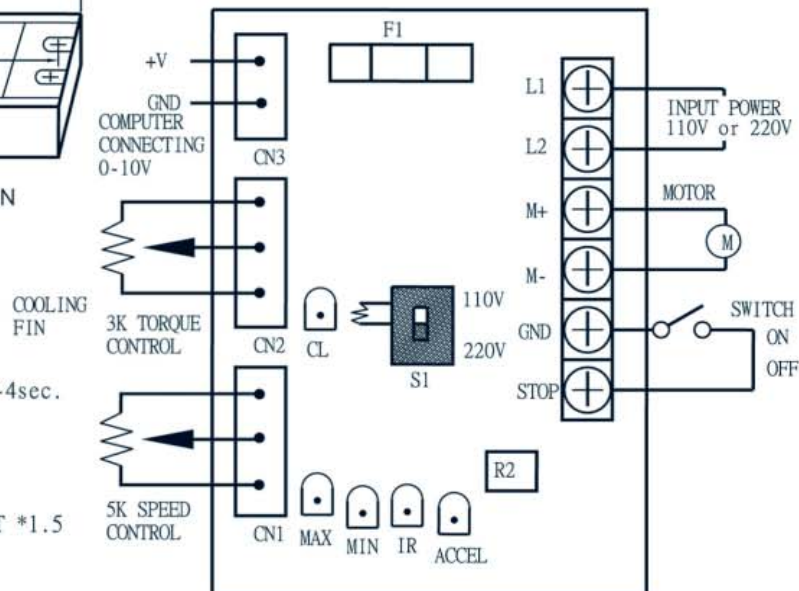
Controlling method :

1. Motor Speed Control
2. Motor Torque Control
3. Computer connecting control



## CONNECTING DETAIL

1. MIN SPEED : 0-30%
2. MAX SPEED : 50-110%
3. IR (LOWER SPEED) : 0-35%
4. Accel( Acceleration time):0.5-4sec.
5. CL(CURRENT LIMIT) : 50-200%
6. S1 (INPUT VOLTAGE)  
INPUT 110VAC OUTPUT 90VDC  
INPUT 220VAC OUTPUT 180VDC
7. F1(FUSE) : MOTOR RATED CURRENT \*1.5
8. CN1 (MOTOR SPEED CONTROL)
9. CN2 (MOTOR TORQUE CONTROL)
10. CN3 (COMPUTER CONNECTING) :  
0-10V CONTROL MOTOR SPEED  
MAX , MIN Unavailable  
ACCEL got the function of fine adjust  
the highest speed.



## CONTROLLING FUNCTION

1. Turn off reset to prevent the motor spurt abruptly.
2. Using starting buffer to prevent the motor and connecting gadget be broken.
3. Motor Speed modified automatically ,speed steady.
4. Automatic compensated when motor is on loaded that makes hi torque on the motor even running speed low.
5. Current could be set to prevent that the motor be broken by over load.
6. Highest and lowest speed could be set up.





文吉電機有限公司  
KING RIGHT MOTOR CO.,LTD.

<b>直流無刷馬達驅動器規格表</b> <b>DC BRUSHLESS MOTOR CONTROL</b>	
名稱 / 型號 I TEM	直流無刷馬達驅動器 / HSF-2406M (V3.0) DC BRUSHLESS MOTOR CONTROL / HSF-2406M (V3.0)
使用電源 VOLTAGE	DC12V ~ DC24V ± 10% or (DC12V ~ DC 35V SPECIAL)
輸出電流 CURRENT	10A (Max.)
適用馬達功率 WATTS	< 240W
操作功能與保護功能 FUNCTION & PROTECTION	驅動器即時溫度監控 TEMP. WATCHING
	馬達瞬間正反轉 CW CCW INSTANT
	功率輸出致能關閉 POWER O/P
	內部/外部速度選擇 INSIDE/OUTSIDE SPEED OPTION
	即時轉速脈波輸出 INSTANT SPEED O/P
	電流過大偵測 CURRENT WATCHING
	外部復歸輸入 OUTSIDE RETURN INPUT
轉速設定 SPEED SET	溫度過熱保護(出廠預設攝氏70.0度) OVER HEAT PROTECTION(ORIGINAL 70 SETUP)
	內部/ 外部控制 (10K Ohmic B Type, 0~5V) INSIDE / OUTSIDE CONTROL
加速時間、減速時間 ACC TIME	N/A
輸入/輸出訊號 I/P or O/P SIGNAL	正轉 CW
	反轉 CCW
	自由停止 STOP FREE
	復歸 RETURN
	速度輸出 SPEED O/P
	警報輸出 ALARM O/P
	
<p>KING RIGHT MOTOR CO.,LTD. No. 21 , Lane 231 , PUJHONG Rd., CHUNGLI COUNTY , 320 , TAIWAN , R.O.C. TEL : 886-3-4615498 FAX 886-3-4612131 www.kingright.com.tw kmotor@tpts4.seed.net.tw</p>	



# 文吉電機有限公司

## KING RIGHT MOTOR CO., LTD.

No. 21 , Lane 231 , PUJHONG Rd., CHUNGLI COUNTY ,320 , TAIWAN , R.O.C.

TEL : 886-3-4615498 FAX 886-3-4612131

www.kingright.com.tw kmotor@tpts4.seed.net.tw

環境溫度/濕度 temp. / humidity : -30 to 65 (不結冰)

腳位 FEET	名稱 NAME	出線顏色 COLOR
1	馬達線圈U相 coil U-PHASE	BLACK (黑)
2	馬達線圈V相 coil V-PHASE	RED (紅)
3	馬達線圈W相 coil W-PHASE	WHITE (白)
4	Hall Sensor電源 H + Hall Sensor power H +	YELLOW (黃)
5	Hall Sensor電源 H - Hall Sensor power H -	GREEN (綠)
6	Hall Sensor, HU	ORANGE (橙)
7	Hall Sensor, HV	BROWN (棕)
8	Hall Sensor, HW	RED (紅)

### J6 接頭 [信號控制輸出入訊號接線端, 10 Pin]

### J6 joint [signal control I/P & O/P signa connector, 10 Pin]

腳位 FEET	名稱 NAME	出線顏色 COLOR
1	GND(信號地) COM0	BLACK (黑)
2	ST/SP (啟動 / 停止) (0=ST=HI , 1=SP=LO)	BROWN (棕)
3	CW/CCW(正反轉輸入端) (0=CW=HI , 1=CCW=LO)	RED (紅)
4	POWER ON/POWER OFF	ORANGE (橙)
5	0 = constant speed = HI / 1=NO constant speed = LO (0=不定速=HI , 1=定速=LO)	YELLOW (黃)
6	PWM IN (OPTIONAL) Lo= HIGHEST SPEED (最高速)	GREEN (綠)
7	ALARM O/P (警訊輸出) Open Collector C (<15mA)	BLUE (藍)
8	SPEED O/P (速度輸出) Open Collector C (<20mA)	PURPLE (紫)
9	0~5V VR (電壓調整)	GREY (灰)
10	MAX 20mA 0~20mA I/P SPEED CONTROL(輸入控速)	WHITE (白)
11	TEST (測試)	BLACK (黑)

