

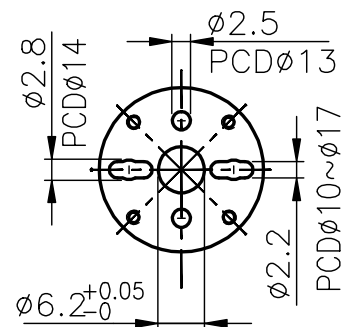
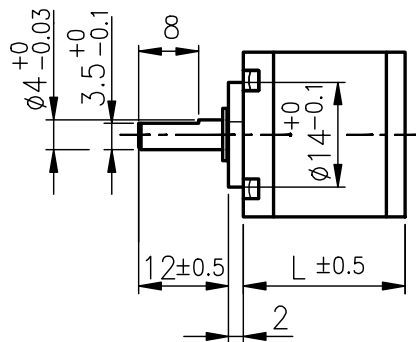
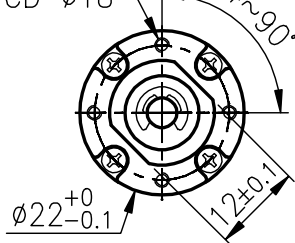
IG-22



外殼材質 Housing material	金屬 metal	背隙 (無負荷時) Backlash, at no-load	$\leq 3^\circ$
輸出軸承型式 Bearing at output	含油軸承 Sleeve bearings	滾珠軸承 Ball bearings	
徑向負荷 Radial load (10mm from flange)	$\leq 0.8 \text{ kgf}$	$\leq 1 \text{ kgf}$	
軸向負荷 Shaft axial load	$\leq 0.6 \text{ kgf}$	$\leq 0.6 \text{ kgf}$	
主軸最大承受壓入力 Shaft press fit force, max.	$\leq 5 \text{ kgf}$	$\leq 5 \text{ kgf}$	
徑向間隙 Radial play of shaft	$\leq 0.08 \text{ mm}$	$\leq 0.05 \text{ mm}$	
軸向間隙 Thrust play of shaft	$\leq 0.2 \text{ mm}$	$\leq 0.2 \text{ mm}$	

外形尺寸 APPEARANCE SIZE

4~M2x4.0 dp.

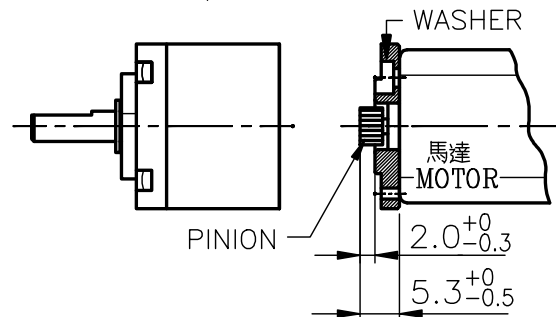
PCD $\phi 18$ 

scale: 1:1

馬達齒輪型式 / PINION SPECIFICATIONS

模 數 Module	0.3				
齒 數 No. of teeth	13				16
壓 力 角 Pressure angle	20°				
孔 徑 Hole diameter	ø1.98				
減 速 比 Reduction ratio	1/4	1/16	1/19	1/62	1/14
	1/72	1/84	1/104	1/231	1/53
	1/270	1/316	1/370	1/455	1/198
	1/1014	1/1249	1/1621	1/1996	1/742

馬達裝卸方法 / MOTOR INSTALLATION



★ 使用相對溼度: 20%~85%RH ★ 使用溫度範圍: -10°C~+60°C
Operating relative humidity Operating temperature range

標準減速比型式 / GEARBOXES SPECIFICATIONS

減速比 Reduction ratio	精確減速比 Exact reduction ratio	定格容許扭力 Rated tolerance torque	瞬間容許扭力 Max momentary tolerance torque	效率 Efficiency	L	重量(含油軸承) Weight (g) Sleeve bearings	重量(滾珠軸承) Weight (g) Ball bearings
1/4	4 5/13	1.0 kgf-cm Max.	3.0 kgf-cm	80%	14.40	27.0	26.0
1/14	14 1/16	1.5 kgf-cm Max.	4.5 kgf-cm	70%	18.05	31.0	30.0
1/16, 1/19	16 23/52, 19 38/169	1.5 kgf-cm Max.	4.5 kgf-cm	70%	18.05	31.0	30.0
1/62, 1/84	61 137/208, 84 645/2197	2.0 kgf-cm Max.	6.0 kgf-cm	60%	21.70	35.0	34.0
1/104	103 688/845	2.0 kgf-cm Max.	6.0 kgf-cm	60%	21.70	35.0	34.0
1/231	231 183/832	2.5 kgf-cm Max.	7.5 kgf-cm	50%	25.35	40.0	39.0
1/316	316 887/8788	2.5 kgf-cm Max.	7.5 kgf-cm	50%	25.35	40.0	39.0
1/370	369 16992/28561	2.5 kgf-cm Max.	7.5 kgf-cm	50%	25.35	40.0	39.0
1/455	455 2036/10985	2.5 kgf-cm Max.	7.5 kgf-cm	50%	25.35	40.0	39.0
1/1014	1013 8767/10816	3.0 kgf-cm Max.	9.0 kgf-cm	40%	29.00	44.0	43.0
1/1621	1620 197397/371293	3.0 kgf-cm Max.	9.0 kgf-cm	40%	29.00	44.0	43.0
1/1996	1995 116052/142805	3.0 kgf-cm Max.	9.0 kgf-cm	40%	29.00	44.0	43.0

IG-22GM

01&02 TYPE

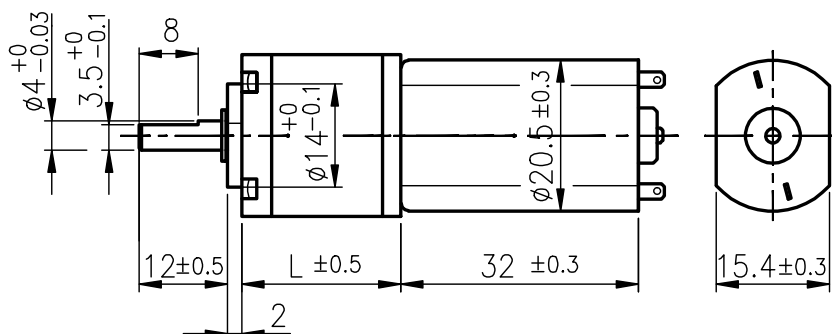
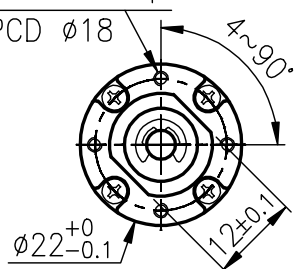


REDUCTION RATIO	L	REDUCTION RATIO	L
1/4	14.40	1/198~1/455	25.35
1/14~1/19	18.05	1/742~1/1996	29.00
1/53~1/104	21.70		

外形尺寸 APPEARANCE SIZE

4~M2x4.0 dp.

PCD Ø18



scale: 1:1

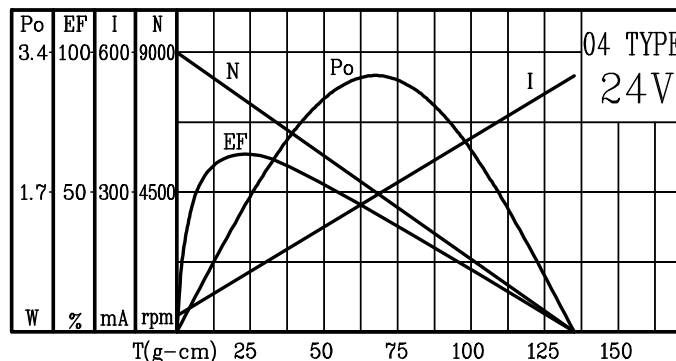
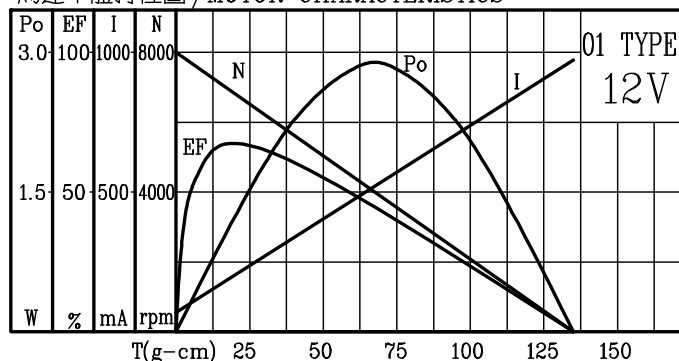
GEARED MOTOR TORQUE/SPEED

	減速比 Reduction ratio	1/4	1/14	1/16	1/19	1/53	1/62	1/72	1/84	1/104	1/198	1/231	1/270	1/316	1/370	1/455	1/742	1/1014	1/1249	1/1621	1/1996
12V	定格扭力(g-cm) Rated torque	77	215	250	295	695	810	950	1100	1370	2100	2500	2500	2500	2500	2500	3000	3000	3000	3000	3000
	定格回轉數(rpm) Rated speed	1450	470	405	348	127	109	93	79	64	34	29	25	22	19	15.5	9.5	7.4	6.0	4.6	3.8
24V	定格扭力(g-cm) Rated torque	77	215	250	295	695	810	950	1100	1370	2100	2500	2500	2500	2500	2500	3000	3000	3000	3000	3000
	定格回轉數(rpm) Rated speed	1600	515	450	384	140	120	103	88	71	37	32	28	23.5	21	17.5	10.5	8.0	6.6	5.0	4.2

馬達單體型式 /MOTOR DATA

定格電壓 Rated volt (V)	定格扭力 Rated torque (g-cm)	定格回轉數 Rated speed (rpm)	定格電流 Rated current (mA)	無負荷回轉數 No load speed (rpm)	無負荷電流 No load current (mA)	定格出力 Rated output (W)	重量 Weight (g)
12	22	6700	≤ 200	8000	≤ 70	1.5	32.0
24	22	7400	≤ 110	9000	≤ 40	1.7	32.0

馬達單體特性圖 /MOTOR CHARACTERISTICS



IG-22GM

03&04 TYPE

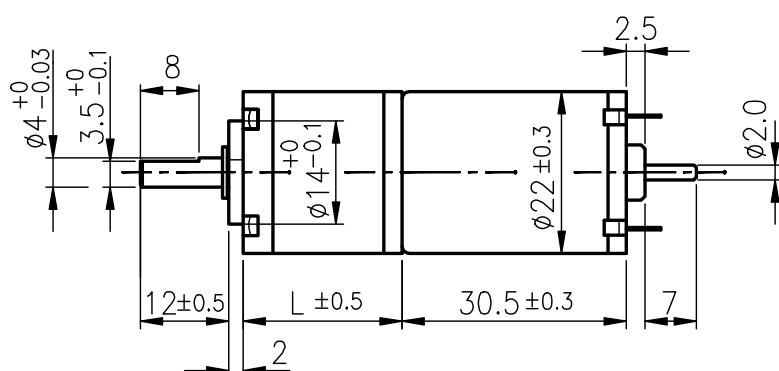
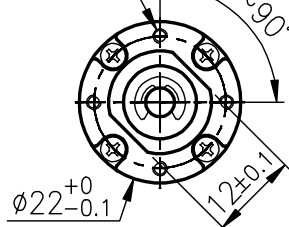


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PCD Ø18



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12V	定格扭力(g-cm) Rated torque	100	300	350	410	970	1100	1300	1500	1900	2500	2500	2500	2500	2500	2500	3000	3000	3000	3000	3000
	定格回轉數(rpm) Rated speed	1000	340	290	245	90	77	66	56	46	24	21	18	16	13.5	11	7.3	5	4.2	3.3	2.7
24V	定格扭力(g-cm) Rated torque	120	360	420	490	1150	1300	1500	1800	2000	2500	2500	2500	2500	2500	2500	3000	3000	3000	3000	3000
	定格回轉數(rpm) Rated speed	1000	330	280	240	89	76	65	55	46	24	21	18	16	13.5	11	7.3	5	4.2	3.3	2.7

馬達單體型式 /MOTOR DATA

定格電壓 Rated volt (V)	定格扭力 Rated torque (g-cm)	定格回轉數 Rated speed (rpm)	定格電流 Rated current (mA)	無負荷回轉數 No load speed (rpm)	無負荷電流 No load current (mA)	定格出力 Rated output (W)	重量 Weight (g)
12	31	4790	≤ 240	6000	≤ 80	1.52	43
24	37	4710	≤ 145	6000	≤ 55	1.79	43

馬達單體特性圖 /MOTOR CHARACTERISTICS

