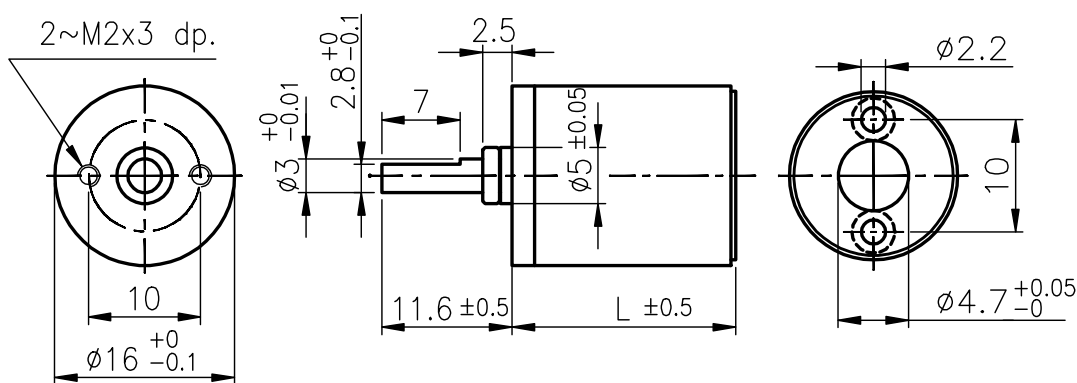


IG-16



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		
徑向負荷 Radial load (10mm from flange)	$\leq 0.5 \text{ kgf}$		
軸向負荷 Shaft axial load	$\leq 0.5 \text{ kgf}$		
主軸最大承受壓入力 Shaft press fit force, max.	$\leq 1.5 \text{ kgf}$		
徑向間隙 Radial play of shaft	$\leq 0.08 \text{ mm}$		
軸向間隙 Thrust play of shaft	$\leq 0.2 \text{ mm}$		

外形尺寸 APPEARANCE SIZE

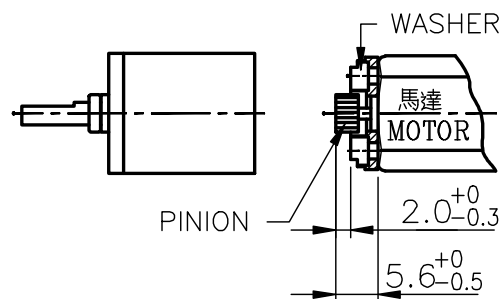


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馬達齒輪型式 / PINION SPECIFICATIONS

模數 Module	0.3			
齒數 No. of teeth	10	13	16	
壓力角 Pressure angle	20°			
孔徑 Hole diameter	ø1.49			
減速比 Reduction ratio	1/29 1/128 1/455 1/690 1/3027	1/104 1/157 1/561 1/1996	1/4 1/62 1/84 1/316 1/1014	1/19 1/72 1/231 1/370 1/1621

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
1/4	4 5/13	1.0 kgf-cm Max.	3.0 kgf-cm	80%	15.05	19.0
1/16, 1/19	16 23/52, 19 38/169	1.5 kgf-cm Max.	4.5 kgf-cm	70%	18.70	23.0
1/62, 1/84	61 137/208, 84 645/2197	2.0 kgf-cm Max.	6.0 kgf-cm	60%	22.35	27.0
1/104	103 688/845	2.0 kgf-cm Max.	6.0 kgf-cm	60%	22.35	27.0
1/231	231 183/832	2.5 kgf-cm Max.	7.5 kgf-cm	50%	26.00	31.0
1/316	316 887/8788	2.5 kgf-cm Max.	7.5 kgf-cm	50%	26.00	31.0
1/370	369 16992/28561	2.5 kgf-cm Max.	7.5 kgf-cm	50%	26.00	31.0
1/455	455 2036/10985	2.5 kgf-cm Max.	7.5 kgf-cm	50%	26.00	31.0
1/1014	1013 8767/10816	3.0 kgf-cm Max.	9.0 kgf-cm	40%	29.65	35.0
1/1621	1620 197397/371293	3.0 kgf-cm Max.	9.0 kgf-cm	40%	29.65	35.0
1/1996	1995 116052/142805	3.0 kgf-cm Max.	9.0 kgf-cm	40%	29.65	35.0

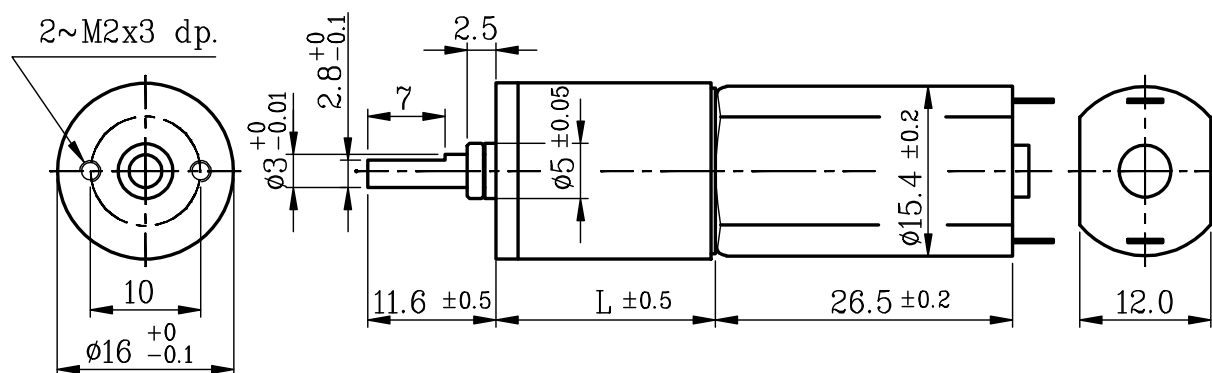
IG-16GM

02&03 TYPE

REDUCTION RATIO	L	REDUCTION RATIO	L
1/4~1/5	15.05	1/198~1/850	26.00
1/14~1/29	18.70	1/867~1/4592	29.65
1/53~1/157	22.35		



外形尺寸 APPEARANCE SIZE



scale: 15:10

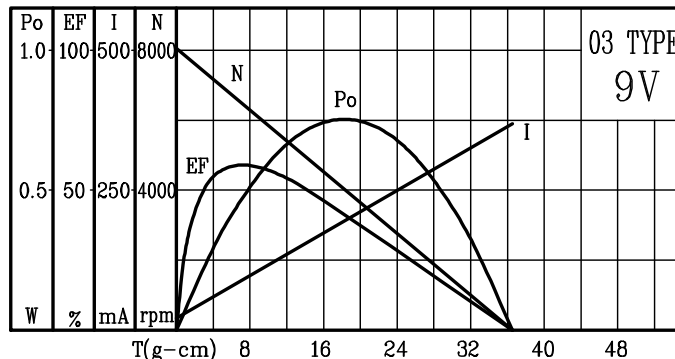
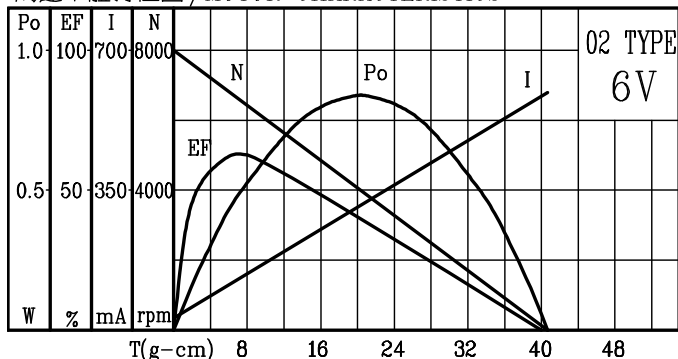
GEARED MOTOR TORQUE/SPEED

減速比 Reduction ratio	1/4	1/14	1/19	1/29	1/62	1/72	1/84	1/104	1/128	1/157	1/231	1/316	1/370	1/455	1/561	1/690	1/1014	1/1621	1/1996	1/3027
6V 定格扭力(g-cm) Rated torque	26	72	99	150	270	320	370	460	560	699	855	1165	1360	1680	2050	2500	3000	3000	3000	3000
6V 定格回轉數(rpm) Rated speed	1400	455	333	219	105	90	77	63	51	41	28	20	17	14	11.5	9.2	6.2	4.1	3.5	2.3
9V 定格扭力(g-cm) Rated torque	24	68	94	140	255	300	350	430	530	660	800	1100	1250	1550	1900	2400	2800	3000	3000	3000
9V 定格回轉數(rpm) Rated speed	1400	450	330	217	104	90	76	62	50	41	28	20	17	14	11.5	9.2	6.2	3.5	2.9	1.9

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)
6	7.4	6550	≤ 160	8000	≤ 65	0.498	18
9	7.0	6500	≤ 110	8000	≤ 50	0.473	18

馬達單體特性圖 / MOTOR CHARACTERISTICS



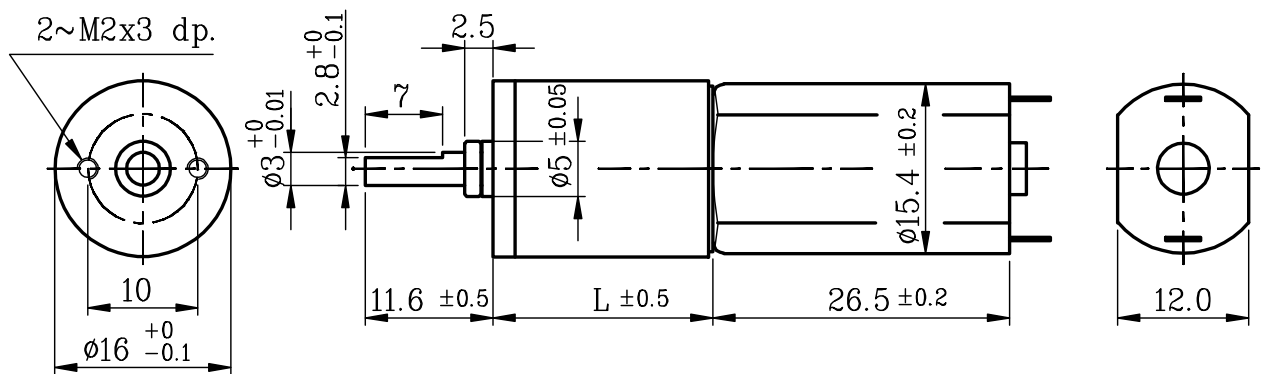
IG-16GM

04&05 TYPE

REDUCTION RATIO	L	REDUCTION RATIO	L
1/4~1/5	15.05	1/198~1/850	26.00
1/14~1/29	18.70	1/867~1/4592	29.65
1/53~1/157	22.35		



外形尺寸 APPEARANCE SIZE



scale: 15:10

GEARED MOTOR TORQUE/SPEED

減速比 Reduction ratio	1/4	1/14	1/19	1/29	1/62	1/72	1/84	1/104	1/128	1/157	1/231	1/316	1/370	1/455	1/561	1/690	1/1014	1/1621	1/1996	1/3027
12V 定格扭力(g-cm) Rated torque	21	60	82	120	220	260	300	380	460	550	700	950	1100	1350	1700	2100	2400	3000	3000	3000
12V 定格回轉數(rpm) Rated speed	1330	430	315	205	100	85	73	59	48	39	26	19	16	13.5	11	8.9	6	3.8	3.2	2.3
24V 定格扭力(g-cm) Rated torque	31	85	120	180	330	380	450	560	690	850	1000	1400	1600	2000	2500	3000	3000	3000	3000	3000
24V 定格回轉數(rpm) Rated speed	2400	760	555	365	170	150	130	105	85	69	47	34	29	24	19.5	15.9	11	7.2	6.1	4.1

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	6.1	6200	≤ 85	8000	≤ 50	0.394	18
24	9.0	11000	≤ 90	13500	≤ 50	1.026	18

馬達單體特性圖 / MOTOR CHARACTERISTICS

