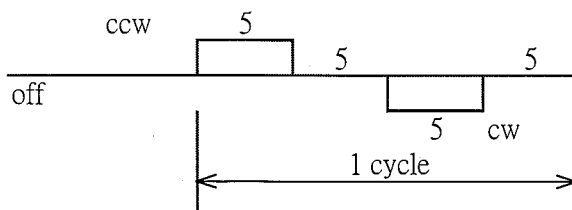


Technical Data

Part Number	IG220019X00015R	
Customer P/N		
ITEM	Specifications	Note
1. Operation Status 1.1 Rated Voltage 1.2 Rated torque 1.3 Radial load 1.4 Axial load 1.5 Turning direction 1.6 Reverse direction 1.7 Using environment 1.8 Preserve environment 1.9 Using voltage range	12V D.C. 0.3 kgf.cm 8N (0.8kg-f) 6N (0.6kg-f) Shaft horizontal CW.CCW Temperature -10~60 °C Humidity 20~90% RH Temperature -20~70 °C Humidity 20~90% RH 12V (D.C.) ±10%	Stable power source 6mm from shaft end
2. Electrical Characteristics 2.1 No Load current 2.2 No Load speed 2.3 Rated current 2.4 Rated speed 2.5 Stall current 2.6 Stall torque 2.7 Insulation 2.8 Durable voltage 2.9 Coil resistance 2.10 Torque constant 2.11 Voltage constant	200 mA max. 789 rpm ±15% 620 mA 639 rpm ±15% 2.4 A 2.2 kgf.cm D.C. 100V meg. 1.0 MΩ min 100V (A.C.) , 1 minute min 5Ω 0.91 kgf.cm/A 8.68 mV/r/min	Motor terminal shell Motor terminal shell Reference Reference Reference
3. Mechanical characteristic 3.1 Reduction ratio 3.2 Thrust play of shaft 3.3 Radial play of shaft 3.4 Back lash 3.5 Outside Appearance	1/19.225 0.2 mm max. 0.05 mm max. 3° max. No scratch defective...	By visual judgment
2. Life Cycle	72000 cycles min.	After the rated life cycle test current @ rated load must stay within ±30% of the initial value and r.p.m. @ rated load must stay within ±20% of the initial value. However change of mechanical noise level was not considered as part of the testing



ASSEMBLY, MAINTENANCE, OPERATION

1. Install: To avoid internal geared motor touched by overlong screws and caused defective. Please check screw size and length on external dimension drawing when installing geared motor into construction.
2. Reprocess: Heavy impact and vibration during reprocessing output shaft may cause loose screws and lead to unbalance gear operation. Please avoid reprocessing output shaft.
Must to prevent overheat when weld wires into terminal and cause breakdown due to burnt internal geared motor parts.
Please do not overload the radial load limitation of output shaft when using belt pulley or chain pulley as power transmission. Please do not overload the axial load limitation of output shaft when pressing parts upon it as well.
3. Environment: The parts of geared motors or itself may corroded or damaged easier when using or maintaining in out of range environment. Must to pay close attention that gears may corroded even under an allowed environment in long term.
4. Impact: Must prevent geared motor from falling and impact, or the parts will get damaged, the screws will be loosed, and the gear operation will unbalance etc...
5. Locked out: Please well prepared current transmitting protection in case of burnt motor coil easy and damaged gear from locked out geared motor.
6. Output shaft Turning:
Please note that it is easier to damage gear when directly turning output shaft.
7. PWM controlling:
The graphite brush of motor will be abnormally wore out or the commutator interval will be blocked by carbon powder when using in the condition of D/T under 60%.
Moreover, please pay attention to the motor with capacitor due to there is ineffectual capacity cycle scope.
8. Momentary reverse:
The graphite brush will be abnormally wore out or coil getting aggravated when geared motor is reversed momentary.
Also, the commutator interval will be stuck if switch frequently.

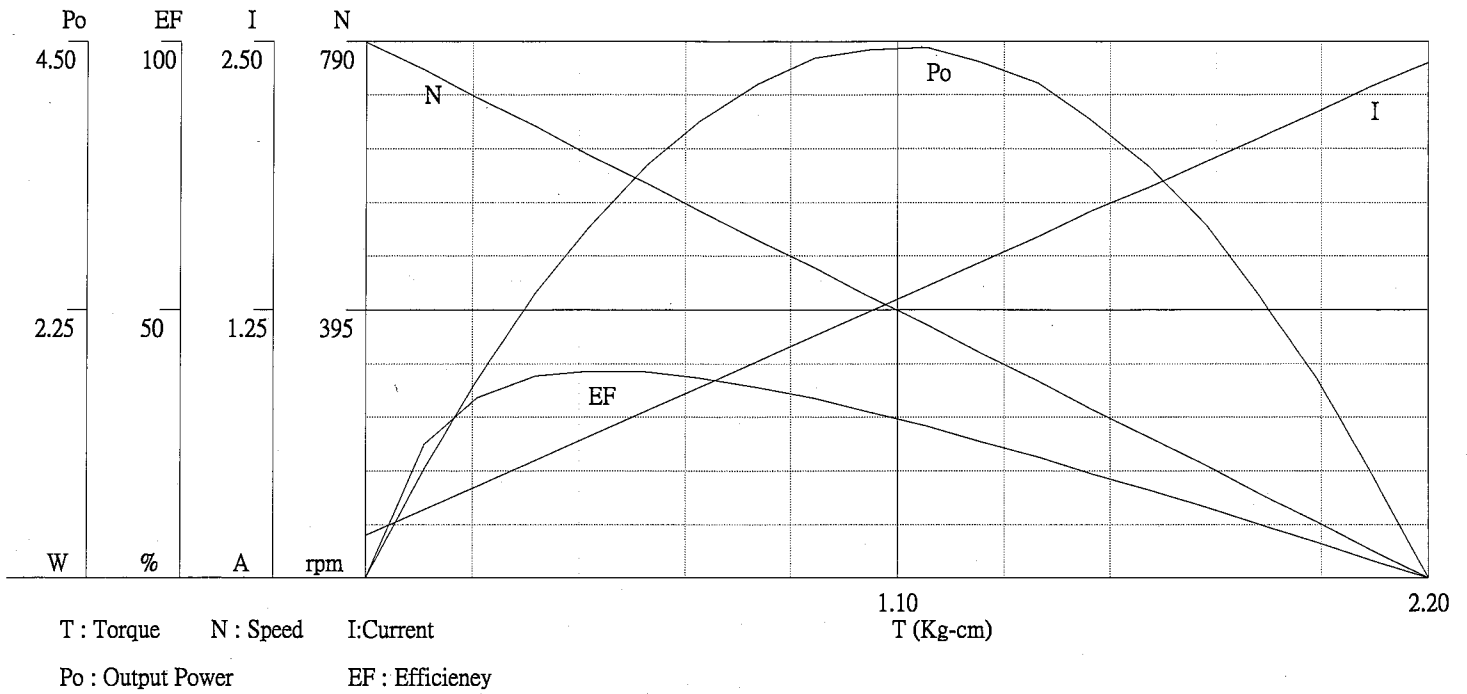
SHAYANG YE INDUSTRIAL CO.,LTD.

Mode: IG220019X00015R

S/N: 001


Voltage : 12 V

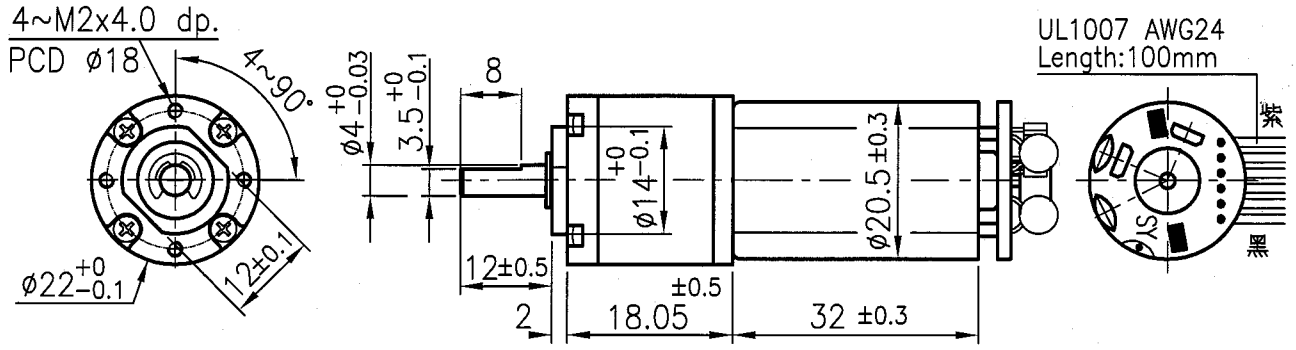
Date: 20131213



	T(N/m)	[Kg/cm]	N(rpm)	I(A)	Po(W)	EF(%)
No Load	0	0.00	789.00	.20	0	0
	.01	.12	748.21	.32	.92	25
	.03	.35	664.99	.55	2.39	37.73
	.06	.58	581.51	.78	3.46	38.49
	.07	.69	540.29	.89	3.83	37.32
	.08	.81	498.15	1.01	4.14	35.59
	.09	.93	457.23	1.13	4.36	33.55
	.1	1.04	415.47	1.24	4.43	31.05
	.12	1.27	332.34	1.47	4.33	25.56
	.14	1.39	290.84	1.59	4.15	22.65
	.15	1.50	249.35	1.71	3.84	19.5
	.16	1.62	207.75	1.82	3.45	16.48
	.17	1.74	165.96	1.94	2.96	13.25
	.18	1.85	124.67	2.05	2.37	10.03
	.2	2.08	41.56	2.29	.89	3.36
Stall	.22	2.20	0.00	2.40	0	0
Po...(max)	.11	1.16	373.66	1.36	4.45	28.37
EF...(max)	.05	.46	622.40	.66	2.94	38.62

參考 REF.
估價 EVALUATE
試作 INITIAL
製作 MASS

Two Channel Encoder
Connections :

 2. Red : -MOTOR
 3. Brown : +MOTOR
 4. Green : HALL SENSOR Vcc
 5. Blue : HALL SENSOR GND
 6. Purple : HALL SENSOR A Vout
 P=2.0-6P



REDUCTION RATIO: 1/19.22
 OUTPUT SHAFT: STEEL
 MOTOR SPECIFICATION: 12V 15000RPM
 OUTPUT-789RPM/ ≤ 200mA WITH NO LOAD

核准 APPROVED BY
核對 CHECKED BY
繪圖 DRAWIN BY

軸徑	孔徑	長度, 角度							
- 指定等級區分之數值公差									
區分	1~6	6~18	18~50	50~120	120~250	250~500	500~1000	角度	
等級	1級	0.1	0.2	0.3	0.4	0.5	0.6	0.8	1°
	2級	0.2	0.4	0.6	0.8	1.2	1.6	2.0	2°
未標示孔徑距公差			±0.1		±0.2				
熱處理	HEAT TREATMENT		件名		GEARMOTOR		單位	mm	
表面處理	SURFACE		圖號		IG220019X00015R		比例	9/10	
材質	MATERIAL		重量		頁次		1/1		
	WEIGHT		SHEET		1/1		☐		

1 新出圖

設變單號 F.C.N.

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祥儀企業股份有限公司
SHA YANG YE INDUSTRIAL CO., LTD.

IG22