Technical Data

Part Number	IG320005-3AC21R					
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 3kgf 2.5kgf Shaft horizontal CW.CCW Temperature -10~60 °C Humidity 20~85% RH Temperature -20~60 °C Humidity 20~85% RH 12V (D.C.) ±10%	Stable power source 10mm 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	220 mA max. 1300rpm ±15% 580 mA 995 rpm ±15% 2 A 1.5 kgf.cm D.C. 500V meg. 10 MΩ min 600V/10mA/1sec 6Ω 0.75 kgf.cm/A 7.16 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	1/5.18 0.3 mm max. 0.05 mm max. 2.5° max.	By visual judgment				
3.5 Outside Appearance 2.Life Cycle	No scratch defective 108000 cycles min.	After the rated life cycle test				
	off 5 5 5 off 1 cycle >	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.

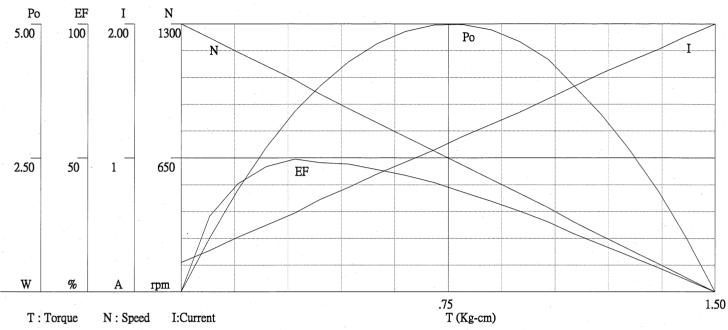
SHAYANG YE INDUSTRIAL CO.,LTD.

Mode: IG320005-3AC21R

S/N: 001

Voltage: 12 V

Date: 20141105



T: Torque

N: Speed

I:Current

Po: Output Power

EF: Efficiency

	T(N/m)	[Kg/cm]	N(rpm)	I(A)	Po(W)	EF(%)	
No Load	0	0.00	1300.00	.22	0	0	
	.01	.08	1231.75	.31	1.01	28.34	
	.02	.24	1095.16	.50	2.7	46.8	
	.04	.39	958.64	.69	3.84	48.28	
	.05	.47	888.64	.78	4.29	47.71	
	.05	.55	820.86	.88	4.63	45.67	
	.06	.63	752.30	.97	4.86	43.5	
	.07	.71	683.59	1.06	4.98	40.79	
	.09	.87	547.46	1.25	4.89	33.95	
	.09	.95	478.72	1.34	4.67	30.21	
	.1	1.03	410.30	1.44	4.34	26.17	
	.11	1.10	341.93	1.53	3.86	21.88	
	.12	1.18	273.41	1.63	3.31	17.65	
	.12	1.26	205.27	1.72	2.65	13.4	
	.14	1.42	68.37	1.91	1	4.53	
Stall	.15	1.50	0.00	2.00	0	0	
Po(max)	.08	.79	615.68	1.16	4.99	37.36	
EF(max)	.03	.32	1027.25	.59	3.37	49.6	

