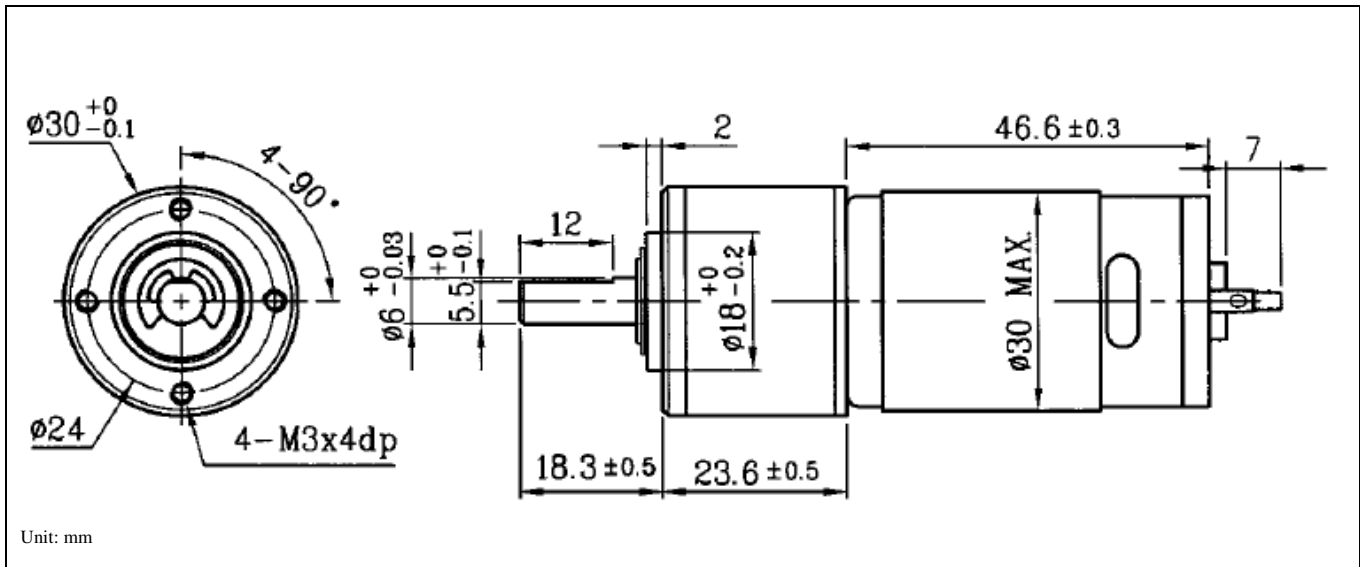
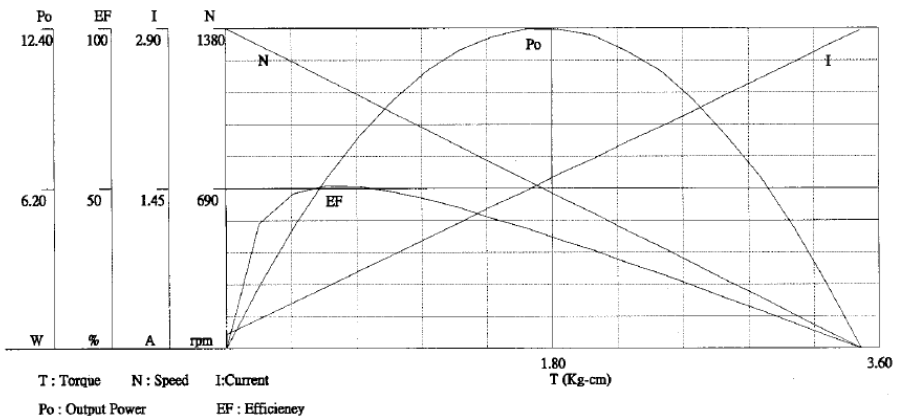
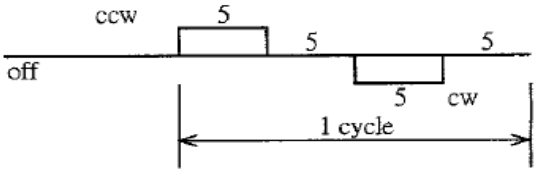


KYSAN SKU: 16087
 MFG: IG300005-30401
 Planetary Gear Motor
 No load: 24VDC, 1408RPM, 150mA
 Reduction Ratio: 1:5.1818
 Rated: 24VDC, 1160 RPM, 0.54 Kg-cm
 DC Motor: 24VDC, 7300 RPM Rated,



Mode: IG300005-30401 S/N: 001 Voltage : 24 V Date: 2007/10/18



| | | | |
|--------------------------------------|--|--|---|
| Part Number | IG300005-30401 | | |
| Customer P/N | | | |
| ITEM | Specifications | Note | |
| 1. Operation Status | | | |
| 1.1 Rated Voltage | 24V D.C. | Stable power source 10mm from shaft end | |
| 1.2 Rated torque | 0.54 kgf.cm | | |
| 1.3 Radial load | 3kgf | | |
| 1.4 Axial load | 2.5kgf | | |
| 1.5 Turning direction | Shaft horizontal | | |
| 1.6 Reverse direction | CW.CCW | | |
| 1.7 Using environment | Temperature -10~60 °C Humidity 20~90% RH | | |
| 1.8 Preserve environment | Temperature -20~70 °C Humidity 20~90% RH | | |
| 1.9 Using voltage range | 24V (D.C.) ±10% | | |
| 2. Electrical Characteristics | | | |
| 2.1 No Load current | 150 mA max. | | Motor terminal shell Motor terminal shell Reference Reference Reference |
| 2.2 No Load speed | 1408 rpm ±15% | | |
| 2.3 Rated current | 560 mA | | |
| 2.4 Rated speed | 1160 rpm ±15% | | |
| 2.5 Stall current | 2.88 A | | |
| 2.6 Stall torque | 3.5 kgf.cm | | |
| 2.7 Insulation | D.C. 500V meg. 10 MΩ min | | |
| 2.8 Durable voltage | 600V/10mA/1sec | | |
| 2.9 Coil resistance | 8.33Ω | | |
| 2.10 Torque constant | 1.21 kgf.cm/A | | |
| 2.11 Voltage constant | 11.6 mV/r/min | | |
| 3. Mechanical characteristic | | | |
| 3.1 Reduction ratio | 1/5.1818 | By visual judgment | |
| 3.2 Thrust play of shaft | 0.3 mm max. | | |
| 3.3 Radial play of shaft | 0.10 mm max. | | |
| 3.4 Back lash | 2.5° max. | | |
| 3.5 Outside Appearance | No scratch defective.... | | |
| 2. Life Cycle | 108000 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

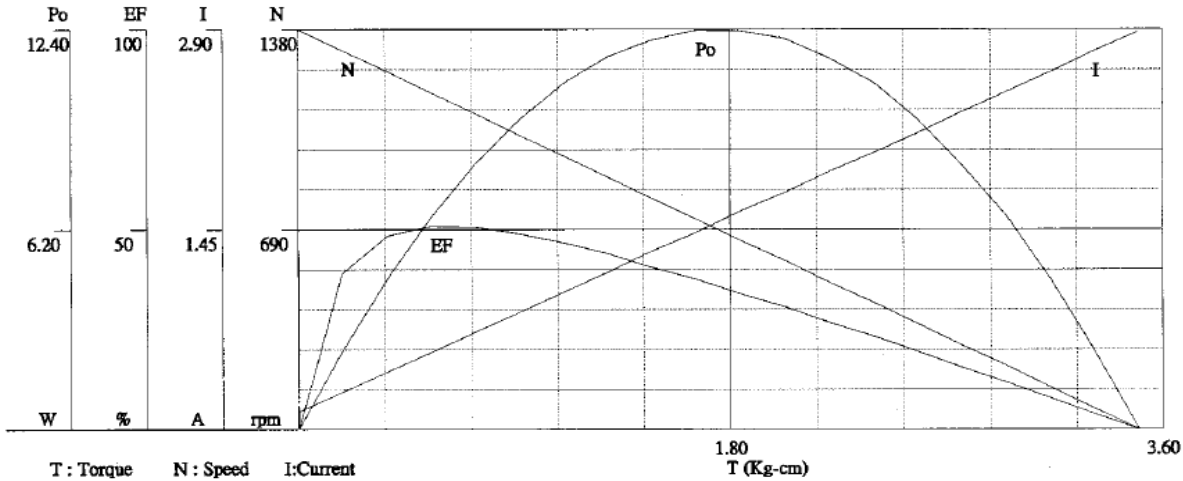
1. **Install:** To avoid internal geared motor touched by overlong screws and caused defective. Please check screw size and length on external dimension drawing when installing geared motor into construction.
2. **Reprocess:** Heavy impact and vibration during reprocessing output shaft may cause loose 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.

Mode: IG300005-30401

S/N: 001

Voltage : 24 V

Date: 2007/10/18



| | T(N/m) | [Kg/cm] | N(rpm) | I(A) | Po(W) | EF(%) |
|------------|--------|---------|---------|------|-------|-------|
| No Load | 0 | 0.00 | 1380.00 | .13 | 0 | 0 |
| | .02 | .18 | 1308.64 | .27 | 2.42 | 38.88 |
| | .07 | .74 | 1089.40 | .71 | 8.27 | 50.62 |
| | .09 | .92 | 1016.50 | .85 | 9.6 | 49.01 |
| | .11 | 1.11 | 943.67 | 1.00 | 10.75 | 46.66 |
| | .13 | 1.29 | 872.36 | 1.14 | 11.55 | 44.01 |
| | .14 | 1.47 | 799.41 | 1.29 | 12.06 | 40.61 |
| | .18 | 1.84 | 653.87 | 1.58 | 12.35 | 33.94 |
| | .2 | 2.03 | 581.23 | 1.72 | 12.11 | 30.55 |
| | .22 | 2.21 | 508.07 | 1.87 | 11.52 | 26.73 |
| | .24 | 2.40 | 435.86 | 2.01 | 10.74 | 23.19 |
| | .25 | 2.58 | 363.03 | 2.15 | 9.61 | 19.42 |
| | .27 | 2.76 | 290.44 | 2.30 | 8.23 | 15.53 |
| | .29 | 2.95 | 217.78 | 2.45 | 6.59 | 11.67 |
| | .32 | 3.31 | 72.63 | 2.74 | 2.47 | 3.91 |
| Stall | .34 | 3.50 | 0.00 | 2.88 | 0 | 0 |
| Po...(max) | .16 | 1.66 | 725.92 | 1.43 | 12.37 | 37.54 |
| EF...(max) | .05 | .55 | 1162.95 | .56 | 6.56 | 50.86 |