

# AC Gear Motors

# 宁波力圣电机有限公司

## NINGBO LEISON MOTOR CO.,LIMITED

## Company Profile

Ningbo Leison Motor Co.,Limited, is a professional manufacturer engaged in the research, development, production, sale of micro motor. Our main products include dc motor, gear motor, brushless motor, stepping motor, ac motor, etc. Our motors are mainly used in the industries of electronic door lock, robot, intelligent household appliance, medical equipment, industrial automation equipment, 3D printers, electric curtain, electric tools, etc.

The company is in compliance with ISO 9001 management requirements, and all our products have obtained CE certification and EU environmental protection ROSH certification requirements. In addition to the domestic market, our company has been exported to over 89 countries and regions including the United States, Germany, Japan and Australia by 2018.

Our company has strong research and development capabilities. In addition to the existing more than 300 conventional products, the company develops more than 10 new products every year to meet the different needs of customers.

We will continue to make efforts to innovate and improve our hardware facilities and customer service. We are committed to become the most reliable motor supplier and integrated solution service provider around you, Ningbo Leison Motor sincerely look forward to cooperate with you!

## Product Ranges

**DC Brush motor :** 6mm-130mm diameter, 0.1W-500W output power
**DC Spur Gear Motor :** 12mm-104mm diameter, 0.1W-300W output power
**DC Planetary Gear Motor :** 10mm-120mm diameter, 0.1W-250W output power
**Dc Brushless Motor :** 24mm-110mm, 1W-1500W output power
**Stepper Motor :** 20mm - 130mm diameter
**AC Gear Motor :** 42mm - 104mm diameter, 3W-400W output power
**Other Motor :** Developing...

## Certificates

DC MOTOR STEPPER MOTOR BRUSHLESS MOTOR LEISON MOTOR TRADEMAKE SGS CERTIFICATE



# MANUFACTURING PLANT


Manufacture Building


CNC center

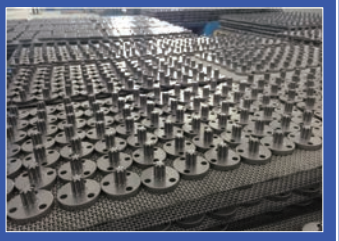

Thermal Treatment Machine


Dynamic Balance Process


Production Line


Wire Winding


Shaft Material in Hardware Workshop


Gear Material in Hardware Workshop


Precision Test

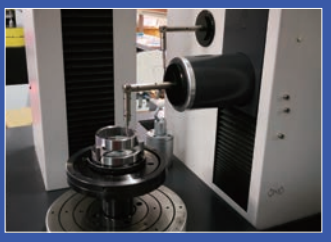

Gear Microscope

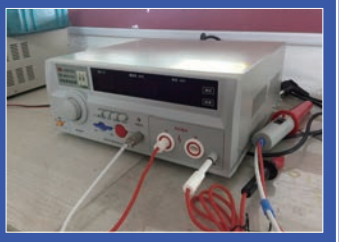

Motors Waiting for Inspection


In Process Inspection


Production Inspection


Moter Comprehensive Test Instrument


Gear Measuring Instrument


Resistance Tester


Lifetime Testing Instrumen


Noise Testing Room


Raw Material Warehouse



Sales Team Office

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# Induction Motor 6W

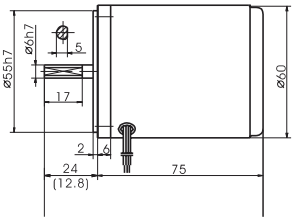
## Motor Characteristics

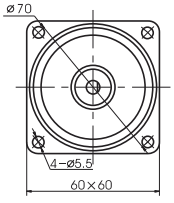
| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | Rated | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Speed | Current | Torque | | | | |
| Motor | Motor with gear shaft | w | v | Hz | P | | r/min | A | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 2IK6A-A | 2IK6GN-A | 6 | 1ph110 | 50 | 4 | CONT | 1250 | 0.20 | 0.05 | 0.45 | 0.06 | 0.55 | 3.0/250 |
| 2IK6A-C | 2IK6GN-C | 6 | 1ph220 | 50 | 4 | CONT | 1250 | 0.10 | 0.05 | 0.45 | 0.07 | 0.70 | 0.8/450 |
| 2IK6A-D | | 6 | 1ph220 | 50 | 2 | CONT | 2700 | 0.11 | 0.02 | 0.21 | 0.04 | 0.40 | 0.8/450 |

◆ The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage.

◆ Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Motor Dimension







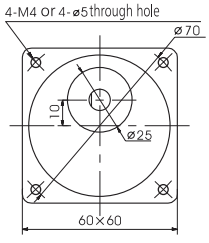

◆ The value in the ( ) is the value of small gear shaft motor.

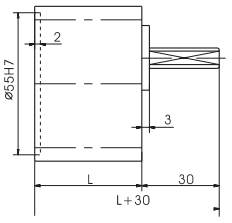
## Gearbox Torque and Speed

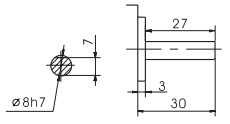
**Model of Gearbox: 2GN□K**

| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 | 180 | 200 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 | 8 | 7.5 |
| | Allowable Torque | N.m | 0.13 | 0.15 | 0.21 | 0.21 | 0.32 | 0.38 | 0.42 | 0.53 | 0.63 | 0.76 | 0.76 | 0.95 | 1.14 | 1.36 | 1.52 | 1.72 | 2.06 | 2.57 | 2.94 | 2.94 | 2.94 | 2.94 | 2.94 | 2.94 |
| | | kgf.cm | 1.3 | 1.5 | 2.1 | 2.1 | 3.2 | 3.9 | 4.3 | 5.4 | 6.4 | 7.7 | 7.7 | 9.7 | 11.6 | 13.9 | 12.5 | 17.5 | 21.0 | 26.2 | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 | 30.0 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 | 10 | 9 |
| | | N.m | 0.10 | 0.13 | 0.13 | 0.17 | 0.26 | 0.30 | 0.34 | 0.43 | 0.51 | 0.62 | 0.62 | 0.76 | 0.92 | 1.11 | 1.24 | 1.39 | 1.67 | 2.09 | 2.50 | 2.78 | 2.94 | 2.94 | 2.94 | 2.94 |
| | Allowable Torque | kgf.cm | 1.0 | 1.3 | 1.3 | 1.7 | 2.6 | 3.5 | 4.0 | 4.4 | 5.2 | 6.3 | 6.3 | 7.8 | 9.4 | 11.3 | 12.6 | 14.2 | 17.0 | 21.3 | 25.5 | 28.4 | 30.0 | 30.0 | 30.0 | 30.0 |

## Gearbox Dimension



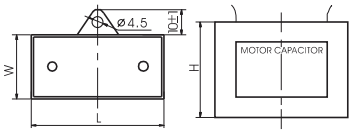




Detailed gearbox output shaft dimension

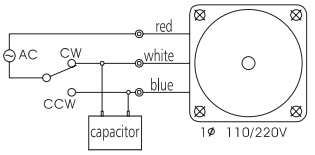
| | Reduction Ratio | L(mm) | Q(kg) |
|---|---|---|---|
| Gearbox | 2GN3K-GN18K | 32 | 0.24 |
| | 2GN20K-GN50K | 42 | 0.30 |
| | 2GN60K-GN200K | | 0.33 |
| Motor | | | 0.70 |

## Capacitor




| capacity μF Allowable Deviation± 5% | Voltage | L±1 | W±1 | H±1 | Type |
|---|---|---|---|---|---|
| | V | mm | mm | mm | |
| 0.8 | 450 | 37 | 14 | 28 | Down-lead |
| 3.0 | 250 | 47 | 22 | 34 | |

## Wiring Diagram



# Induction Motor 15W

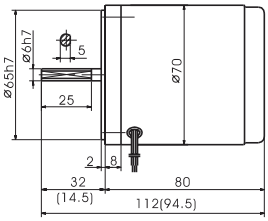
## Motor Characteristics

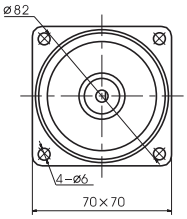
| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | Rated | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Speed | Current | Torque | | | | |
| Motor | Motor with gear shaft | w | v | Hz | P | | r/min | A | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 3IK15A-A | 3IK15GN-A | 15 | 1ph110 | 50 | 4 | CONT | 1300 | 0.30 | 0.11 | 1.10 | 0.09 | 0.09 | 5.0/250 |
| 3IK15A-C | 3IK15GN-C | 15 | 1ph220 | 50 | 4 | CONT | 1300 | 0.14 | 0.11 | 1.10 | 0.10 | 0.95 | 1.2/450 |
| 3IK15A-D | | 15 | 1ph220 | 50 | 2 | CONT | 2750 | 0.17 | 0.06 | 0.55 | 0.08 | 0.75 | 1.5/450 |

◆The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage.

◆Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Motor Dimension







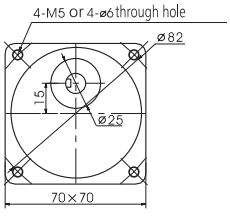

◆The value in the ( ) is the value of small gear shaft motor.

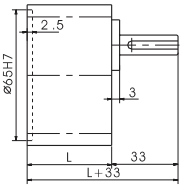
## Gearbox Torque and Speed

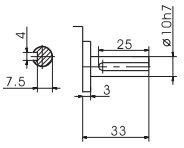
**Model of Gearbox: 3GN□K**

| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 | 180 | 200 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 | 8 | 7.5 |
| | Allowable Torque | N.m | 0.31 | 0.38 | 0.53 | 0.64 | 0.79 | 0.95 | 1.06 | 1.32 | 1.59 | 1.90 | 1.90 | 2.37 | 2.85 | 3.42 | 3.81 | 4.28 | 4.90 | 4.90 | 4.90 | 4.90 | 4.90 | 4.90 | 4.90 | 4.90 |
| | | kgf.cm | 3.2 | 3.9 | 5.4 | 6.5 | 8.1 | 9.7 | 10.8 | 13.5 | 16.2 | 19.4 | 19.4 | 24.2 | 29.1 | 31.9 | 38.8 | 43.6 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 | 10 | 9 |
| | Allowable Torque | N.m | 0.29 | 0.35 | 0.50 | 0.60 | 0.75 | 0.89 | 0.99 | 1.25 | 1.49 | 1.79 | 1.79 | 2.24 | 2.68 | 3.22 | 3.58 | 4.02 | 4.83 | 4.90 | 4.90 | 4.90 | 4.90 | 4.90 | 4.90 | 4.90 |
| | | kgf.cm | 3.0 | 3.6 | 5.1 | 6.1 | 7.6 | 9.1 | 10.1 | 12.7 | 15.2 | 18.2 | 18.2 | 22.8 | 27.3 | 32.8 | 36.5 | 41.0 | 49.2 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 |

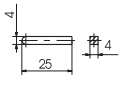
## Gearbox Dimension



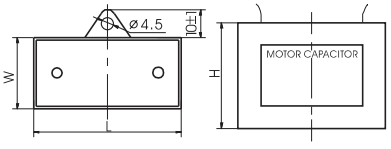

Detailed gearbox output shaft dimension




detailed key dimension

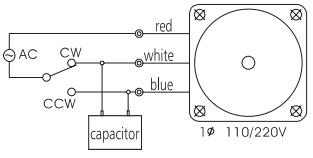
| | Reduction Ratio | L(mm) | Q(kg) |
|---|---|---|---|
| Gearbox | 3GN3K-GN18K | 32 | 0.38 |
| | 3GN20K-GN50K | 42 | 0.47 |
| | 3GN60K-GN200K | | 0.52 |
| Motor | | | 1.04 |

## Capacitor




| capacity μF Allowable Deviation± 5% | Voltage | L±1 | W±1 | H±1 | Type |
|---|---|---|---|---|---|
| | V | mm | mm | mm | |
| 1.2 | 450 | 37 | 14 | 28 | Down-lead |
| 1.5 | 450 | 37 | 14 | 28 | |
| 5.0 | 250 | 47 | 22 | 34 | |

## Wiring Diagram



# Induction Motor 25W

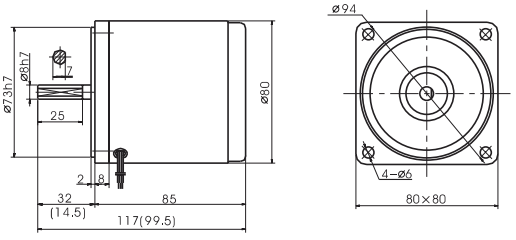
## Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | Rated | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Speed | Current | Torque | | | | |
| Motor | Motor with gear shaft | w | v | Hz | P | | r/min | A | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 4IK25A-A | 4IK25GN-A | 25 | 1ph110 | 50 | 4 | CONT | 1350 | 0.45 | 0.18 | 1.80 | 0.18 | 1.80 | 7.0/250 |
| 4IK25A-C | 4IK25GN-C | 25 | 1ph220 | 50 | 4 | CONT | 1350 | 0.24 | 0.18 | 1.80 | 0.18 | 1.80 | 1.8/450 |
| 4IK25A-S | 4IK25GN-S | 25 | 3ph220 | 50 | 4 | CONT | 1300 | 0.25 | 0.19 | 1.88 | 0.19 | 1.88 | / |
| 4IK25A-$S_3$ | 4IK25GN-$S_3$ | 25 | 3ph380 | 50 | 4 | CONT | 1300 | 0.14 | 0.19 | 1.88 | 0.19 | 1.88 | / |
| 4IK25A-D | | 25 | 1ph220 | 50 | 2 | CONT | 2700 | 0.28 | 0.09 | 0.90 | 0.09 | 0.90 | 2.5/450 |

◆The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage.

◆Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Motor Dimension




◆The value in the ( ) is the value of small gear shaft motor.

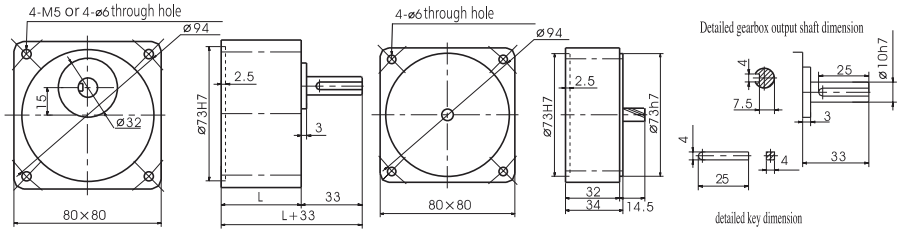


## Gearbox Torque and Speed

**Model of Gearbox: 4GN□K**

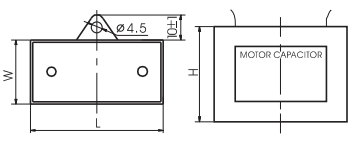
| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 | 180 | 200 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 | 8 | 7.5 |
| | Allowable Torque | N.m | 0.52 | 0.63 | 0.87 | 1.05 | 1.31 | 1.57 | 1.74 | 2.19 | 2.62 | 3.15 | 3.15 | 3.94 | 4.72 | 5.66 | 6.29 | 7.12 | 7.84 | 7.84 | 7.84 | 7.84 | 7.84 | 7.84 | 7.84 | 7.84 |
| | | kgf.cm | 5.3 | 6.4 | 8.9 | 10.7 | 13.4 | 16.0 | 17.8 | 22.3 | 26.7 | 32.1 | 32.1 | 40.2 | 48.2 | 57.8 | 64.2 | 72.6 | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 | 10 | 9 |
| | | N.m | 0.43 | 0.51 | 0.72 | 0.85 | 1.07 | 1.28 | 1.43 | 1.78 | 2.15 | 2.57 | 2.58 | 3.22 | 3.86 | 4.64 | 5.16 | 5.82 | 6.99 | 7.84 | 7.84 | 7.84 | 7.84 | 7.84 | 7.84 | 7.84 |
| | Allowable Torque | kgf.cm | 4.4 | 5.2 | 7.3 | 8.7 | 10.9 | 13.1 | 14.6 | 18.2 | 21.9 | 26.2 | 26.3 | 32.9 | 39.4 | 47.3 | 52.6 | 59.4 | 71.3 | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 |

## Gearbox Dimension



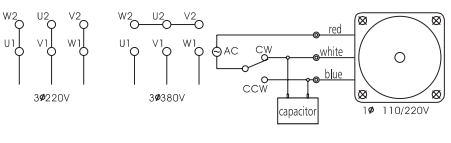

| | Reduction Ratio | L(mm) | Q(kg) |
|---|---|---|---|
| Gearbox | 4GN3K-GN18K | 32 | 0.43 |
| | 4GN20K-GN50K | 43.5 | 0.57 |
| | 4GN60K-GN200K | | 0.61 |
| Intermediate Gearbox | 4GN10X | 32 | 0.43 |
| Motor | | | 1.64 |

## Capacitor




| capacity μF Allowable Deviation± 5% | Voltage | L±1 | W±1 | H±1 | Type |
|---|---|---|---|---|---|
| | V | mm | mm | mm | |
| 1.8 | 450 | 38 | 18 | 28 | Down-lead |
| 2.5 | 450 | 38 | 18 | 28 | |
| 7.0 | 250 | 47 | 26 | 38 | |

## Wiring Diagram



# Induction Motor 40W

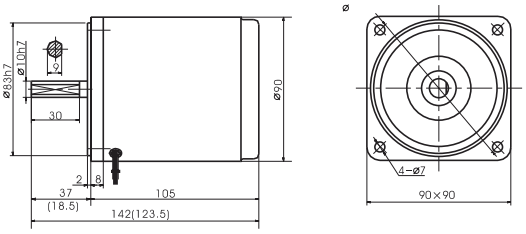
## Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | Rated | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Speed | Current | Torque | | | | |
| Motor | Motor with gear shaft | w | v | Hz | P | | r/min | A | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 5IK40A-A | 5IK40GN-A | 40 | 1ph110 | 50 | 4 | CONT | 1350 | 0.64 | 0.29 | 2.85 | 0.25 | 2.50 | 10.0/250 |
| 5IK40A-C | 5IK40GN-C | 40 | 1ph220 | 50 | 4 | CONT | 1350 | 0.32 | 0.29 | 2.85 | 0.28 | 2.50 | 2.5/450 |
| 5IK40A-S | 5IK40GN-S | 40 | 3ph220 | 50 | 4 | CONT | 1300 | 0.38 | 0.29 | 2.90 | 1.15 | 11.5 | / |
| 5IK40A-S3 | 5IK40GN-S3 | 40 | 3ph380 | 50 | 4 | CONT | 1300 | 0.22 | 0.29 | 2.90 | 1.15 | 11.5 | / |
| 5IK40A-D | | 40 | 1ph220 | 50 | 2 | CONT | 2700 | 0.35 | 0.15 | 1.45 | 0.13 | 1.25 | 3.0/450 |

◆The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage.

◆Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Motor Dimension





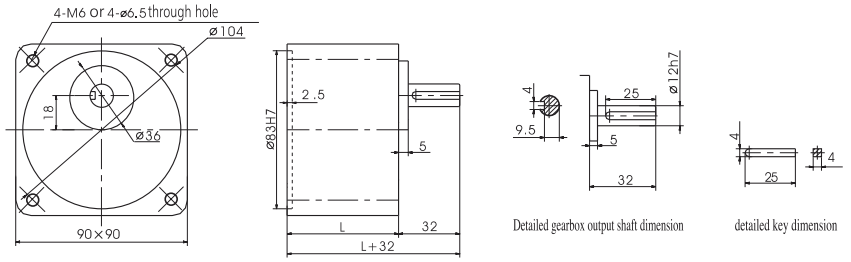

◆The value in the ( ) is the value of small gear shaft motor.

## Gearbox Torque and Speed

**Model of Gearbox: 5GN□K**

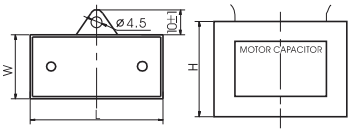
| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 | 180 | 200 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 | 8 | 7.5 |
| | Allowable Torque | N.m | 0.68 | 0.82 | 1.14 | 1.37 | 1.72 | 2.06 | 2.29 | 2.86 | 3.43 | 4.13 | 4.59 | 5.16 | 6.20 | 7.44 | 8.26 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 |
| | | kgf.cm | 6.94 | 8.37 | 11.6 | 14.0 | 17.6 | 21.0 | 23.4 | 29.2 | 35.0 | 42.1 | 46.8 | 52.6 | 63.3 | 75.9 | 84.3 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 | 10 | 9 |
| | | N.m | 0.58 | 0.70 | 0.97 | 1.16 | 1.45 | 1.74 | 1.93 | 2.41 | 2.90 | 3.48 | 3.87 | 4.36 | 5.23 | 6.28 | 6.97 | 8.72 | 9.46 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 |
| | Allowable Torque | kgf.cm | 5.92 | 7.14 | 9.90 | 11.8 | 10.8 | 17.7 | 19.7 | 24.6 | 29.6 | 35.5 | 39.5 | 44.5 | 53.4 | 64.1 | 71.1 | 89.0 | 96.5 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

## Gearbox Dimension



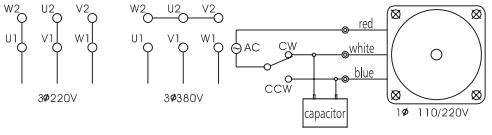

| | Reduction Ratio | L(mm) | Q(kg) |
|---|---|---|---|
| Gearbox | 5GN3K-GN18K | 42 | 0.73 |
| | 5GN20K-GN36K | 60 | 1.03 |
| | 5GN40K-GN200K | | 1.13 |
| Motor | | | 2.30 |

## Capacitor




| capacity μF Allowable Deviation± 5% | Voltage | L±1 | W±1 | H±1 | Type |
|---|---|---|---|---|---|
| | V | mm | mm | mm | |
| 2.5 | 450 | 37 | 18 | 28 | Down-lead |
| 3.0 | 450 | 37 | 18 | 28 | |
| 10.0 | 250 | 47 | 26 | 38 | |

## Wiring Diagram



# Induction Motor 60W

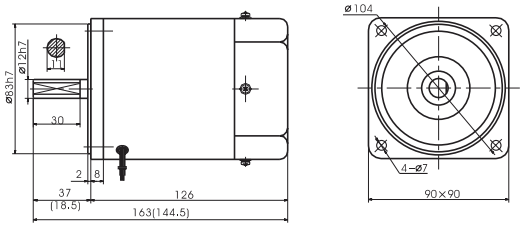
## Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | Rated | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Speed | Current | Torque | | | | |
| Motor | Motor with gear shaft | w | v | Hz | P | | r/min | A | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 5IK60A-AF | 5IK60GN-AF | 60 | 1ph110 | 50 | 4 | CONT | 1350 | 0.98 | 0.44 | 4.40 | 0.38 | 3.75 | 15.0/250 |
| 5IK60A-CF | 5IK60GN-CF | 60 | 1ph220 | 50 | 4 | CONT | 1350 | 0.52 | 0.44 | 4.40 | 0.40 | 4.00 | 4.0/450 |
| 5IK60A-SF | 5IK60GN-SF | 60 | 3ph220 | 50 | 4 | CONT | 1300 | 0.49 | 0.46 | 4.55 | 1.70 | 17.0 | / |
| 5IK60A-S3F | 5IK60GN-S3F | 60 | 3ph380 | 50 | 4 | CONT | 1300 | 0.28 | 0.46 | 4.55 | 1.70 | 17.0 | / |
| 5IK60A-DF | | 60 | 1ph220 | 50 | 2 | CONT | 2700 | 0.56 | 0.21 | 2.10 | 0.25 | 2.50 | 4.0/450 |

◆ The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage.

◆ Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Motor Dimension





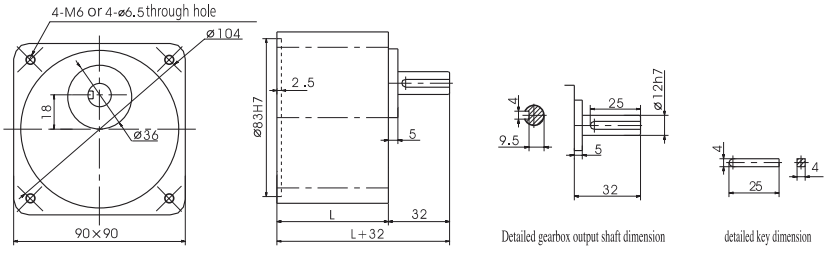

◆ The value in the ( ) is the value of small gear shaft motor.

## Gearbox Torque and Speed

**Model of Gearbox: 5GN□K**

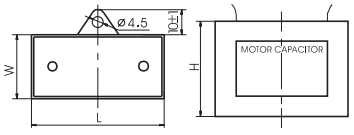
| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 | 180 | 200 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 | 8 | 7.5 |
| | Allowable Torque | N.m | 1.03 | 1.24 | 1.72 | 2.6 | 2.58 | 3.10 | 3.10 | 3.88 | 4.65 | 5.38 | 5.60 | 7.01 | 8.41 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 |
| | | kgf.cm | 10.5 | 12.7 | 17.6 | 21.0 | 26.3 | 31.6 | 31.6 | 39.6 | 47.4 | 54.9 | 57.1 | 71.6 | 85.8 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 | 10 | 9 |
| | | N.m | 0.9 | 1.08 | 1.50 | 1.80 | 2.23 | 2.70 | 2.70 | 3.38 | 4.05 | 4.88 | 4.88 | 6.10 | 7.33 | 8.97 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 |
| | Allowable Torque | kgf.cm | 9.18 | 11.0 | 15.3 | 18.4 | 23.0 | 27.6 | 27.6 | 34.5 | 41.3 | 49.5 | 49.5 | 62.2 | 74.7 | 90.0 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

## Gearbox Dimension



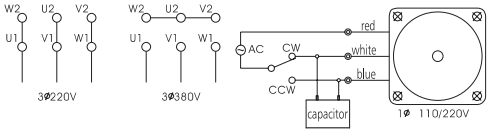

| | Reduction Ratio | L(mm) | Q(kg) |
|---|---|---|---|
| Gearbox | 5GN3K-GN18K | 42 | 0.73 |
| | 5GN20K-GN36K | 60 | 1.03 |
| | 5GN40K-GN200K | | 1.13 |
| Motor | | | 2.40 |

## Capacitor




| capacity μF Allowable Deviation± 5% | Voltage | L±1 | W±1 | H±1 | Type |
|---|---|---|---|---|---|
| | V | mm | mm | mm | |
| 4.0 | 450 | 47 | 22 | 34 | Down-lead |
| 15.0 | 250 | 57 | 32 | 46 | |

## Wiring Diagram



# Induction Motor 60W

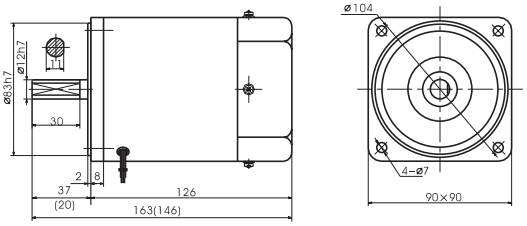
## Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | Rated | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Speed | Current | Torque | | | | |
| Motor | Motor with gear shaft | w | v | Hz | P | | r/min | A | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 5IK60A-AF | 5IK60GU-AF | 60 | 1ph110 | 50 | 4 | CONT | 1350 | 0.98 | 0.44 | 4.40 | 0.38 | 3.75 | 15.0/250 |
| 5IK60A-CF | 5IK60GU-CF | 60 | 1ph220 | 50 | 4 | CONT | 1350 | 0.52 | 0.44 | 4.40 | 0.40 | 4.00 | 4.0/450 |
| 5IK60A-SF | 5IK60GU-SF | 60 | 3ph220 | 50 | 4 | CONT | 1300 | 0.49 | 0.46 | 4.55 | 1.70 | 17.0 | / |
| 5IK60A-S3F | 5IK6GU-S3F | 60 | 3ph380 | 50 | 4 | CONT | 1300 | 0.28 | 0.46 | 4.55 | 1.70 | 17.0 | / |

◆The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage.

◆Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Motor Dimension





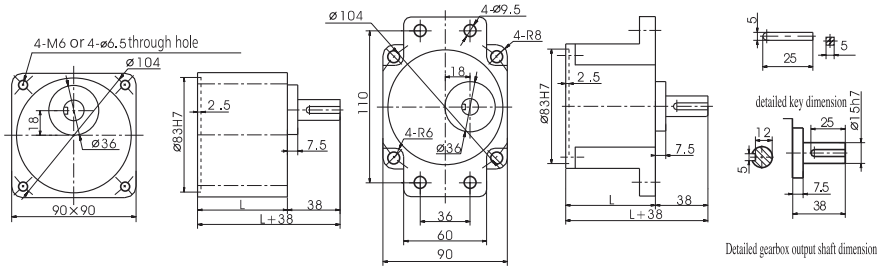

◆The value in the ( ) is the value of small gear shaft motor.

## Gearbox Torque and Speed

**Model of Gearbox: 5GU□K**

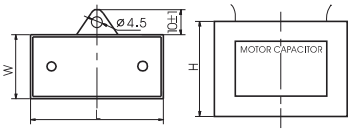
| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 | 180 | 200 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 | 8 | 7.5 |
| | Allowable Torque | N.m | 1.03 | 1.24 | 1.72 | 2.6 | 2.58 | 3.10 | 3.10 | 3.88 | 4.65 | 5.38 | 5.60 | 7.01 | 8.41 | 10.1 | 11.2 | 14.0 | 16.8 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 |
| | | kgf.cm | 10.5 | 12.7 | 17.6 | 21.0 | 26.3 | 31.6 | 31.6 | 39.6 | 47.4 | 54.9 | 57.1 | 71.6 | 85.8 | 103 | 114 | 143 | 171 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 | 10 | 9 |
| | | N.m | 0.9 | 1.08 | 1.50 | 1.80 | 2.23 | 2.70 | 2.70 | 3.38 | 4.05 | 4.88 | 4.88 | 6.10 | 7.33 | 8.79 | 9.76 | 12.2 | 14.6 | 18.3 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 |
| | Allowable Torque | kgf.cm | 9.18 | 11.0 | 15.3 | 18.4 | 23.0 | 27.6 | 27.6 | 34.5 | 41.3 | 49.5 | 49.5 | 62.2 | 74.7 | 90.0 | 99.8 | 124 | 149 | 187 | 200 | 200 | 200 | 200 | 200 | 200 |

## Gearbox Dimension



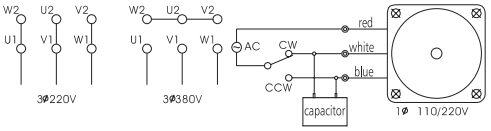

| | Reduction Ratio | L(mm) | Q(kg) |
|---|---|---|---|
| Gearbox | 5GU3K-GU9K | 65 | 1.21 |
| | 5GU10K-GU18K | | 1.30 |
| | 5GU20K-GU75K | | 1.40 |
| | 5GU90K-GU200K | | 1.45 |
| Motor | | | 2.40 |

## Capacitor




| capacity μF Allowable Deviation± 5% | Voltage | L±1 | W±1 | H±1 | Type |
|---|---|---|---|---|---|
| | V | mm | mm | mm | |
| 4.0 | 450 | 47 | 22 | 34 | Down-lead |
| 15.0 | 250 | 57 | 32 | 46 | |

## Wiring Diagram



# Induction Motor 90W

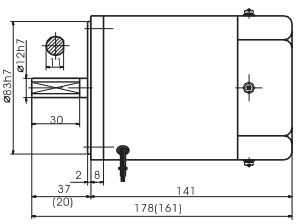
## Motor Characteristics

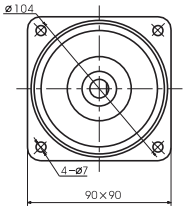
| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | Rated | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Speed | Current | Torque | | | | |
| Motor | Motor with gear shaft | w | v | Hz | P | | r/min | A | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 5IK90A-AF | 5IK90GU-AF | 90 | 1ph110 | 50 | 4 | CONT | 1350 | 1.40 | 0.64 | 6.40 | 0.50 | 5.00 | 20.0/250 |
| 5IK90A-CF | 5IK90GU-CF | 90 | 1ph220 | 50 | 4 | CONT | 1350 | 0.70 | 0.64 | 6.40 | 0.48 | 4.80 | 5.0/450 |
| 5IK90A-SF | 5IK90GU-SF | 90 | 3ph220 | 50 | 4 | CONT | 1300 | 0.66 | 0.66 | 6.60 | 2.40 | 24.0 | / |
| 5IK90A-S3F | 5IK90GU-S3F | 90 | 3ph380 | 50 | 4 | CONT | 1300 | 0.38 | 0.66 | 6.60 | 2.40 | 24.0 | / |
| 5IK90A-DF | | 90 | 1ph220 | 50 | 2 | CONT | 2800 | 0.79 | 0.30 | 3.00 | 0.34 | 3.40 | 6.0/450 |

◆The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage.

◆Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Motor Dimension





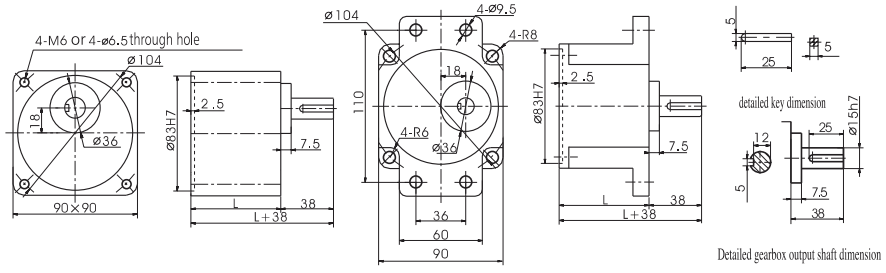

◆The value in the ( ) is the value of small gear shaft motor.

## Gearbox Torque and Speed

**Model of Gearbox: 5GU□K**

| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 | 180 | 200 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 | 8 | 7.5 |
| | Allowable Torque | N.m | 1.55 | 1.86 | 2.58 | 3.10 | 3.87 | 4.64 | 4.65 | 5.81 | 6.98 | 8.37 | 8.40 | 10.5 | 12.6 | 15.1 | 16.8 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 |
| | | kgf.cm | 15.8 | 19.0 | 29.2 | 31.6 | 39.6 | 47.2 | 47.4 | 59.3 | 71.2 | 85.4 | 85.7 | 107 | 129 | 154 | 171 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 | 10 | 9 |
| | Allowable Torque | N.m | 1.35 | 1.62 | 2.25 | 2.70 | 3.37 | 4.04 | 4.05 | 5.06 | 6.07 | 7.29 | 7.32 | 9.15 | 11.0 | 13.2 | 14.6 | 18.3 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 |
| | | kgf.cm | 13.8 | 16.5 | 23.0 | 27.6 | 34.4 | 41.2 | 41.3 | 51.6 | 61.9 | 74.4 | 74.7 | 93.4 | 112 | 135 | 149 | 187 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |

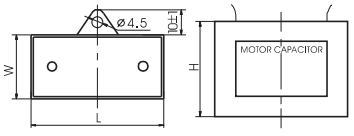
## Gearbox Dimension




Detailed gearbox output shaft dimension

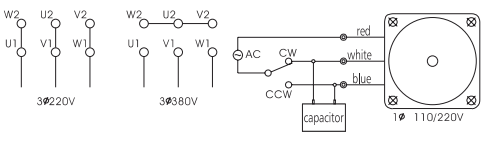
| | Reduction Ratio | L(mm) | Q(kg) |
|---|---|---|---|
| Gearbox | 5GU3K-GU9K | 65 | 1.21 |
| | 5GU10K-GU18K | | 1.30 |
| | 5GU20K-GU75K | | 1.40 |
| | 5GU90K-GU200K | | 1.45 |
| Motor | | | 3.40 |

## Capacitor




| capacity μF Allowable Deviation± 5% | Voltage | L±1 | W±1 | H±1 | Type |
|---|---|---|---|---|---|
| | V | mm | mm | mm | |
| 5.0 | 450 | 47 | 22 | 34 | Down-lead |
| 6.0 | 450 | 47 | 26 | 38 | |
| 20.0 | 250 | 68 | 32 | 56 | |

## Wiring Diagram



# Induction Motor 120W

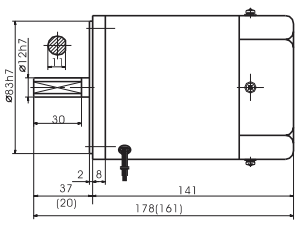
## Motor Characteristics

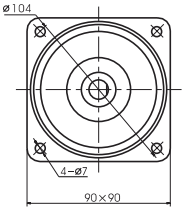
| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | Rated | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Speed | Current | Torque | | | | |
| Motor | Motor with gear shaft | w | v | Hz | P | | r/min | A | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 5IK120A-AF | 5IK120GU-AF | 120 | 1ph110 | 50 | 4 | CONT | 1250 | 1.80 | 0.90 | 9.00 | 0.65 | 6.50 | 25.0/250 |
| 5IK120A-CF | 5IK120GU-CF | 120 | 1ph220 | 50 | 4 | CONT | 1300 | 0.92 | 0.87 | 8.65 | 0.75 | 7.50 | 7.0/450 |
| 5IK120A-SF | 5IK120GU-SF | 120 | 3ph220 | 50 | 4 | CONT | 1300 | 0.83 | 0.87 | 8.65 | 3.20 | 32.00 | / |
| 5IK120A-S3F | 5IK120GU-S3F | 120 | 3ph380 | 50 | 4 | CONT | 1300 | 0.48 | 0.87 | 8.65 | 3.20 | 32.00 | / |
| 5IK120A-DF | | 120 | 1ph220 | 50 | 2 | CONT | 2800 | 1.20 | 0.40 | 4.00 | 0.51 | 5.05 | 8.0/450 |

◆The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage.

◆Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Motor Dimension









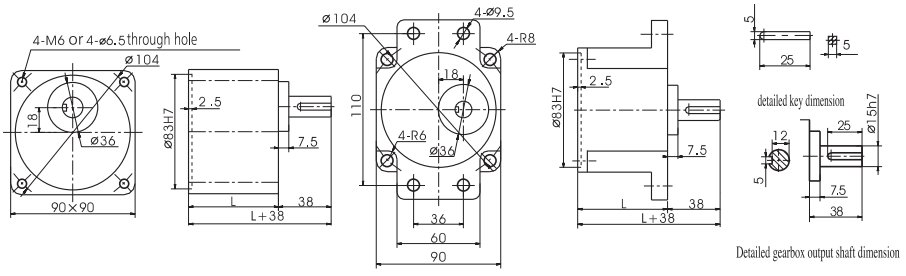

◆The value in the ( ) is the value of small gear shaft motor.

## Gearbox Torque and Speed

**Model of Gearbox: 5GU□K**

| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 | 180 | 200 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 | 8 | 7.5 |
| | Allowable Torque | N.m | 2.14 | 2.57 | 3.57 | 4.29 | 5.38 | 6.43 | 6.43 | 8.05 | 9.66 | 11.6 | 11.6 | 14.6 | 17.5 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 |
| | | kgf.cm | 21.8 | 26.2 | 36.4 | 43.8 | 54.7 | 65.6 | 65.6 | 82.1 | 98.6 | 118 | 118 | 149 | 196 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 | 10 | 9 |
| | | N.m | 1.80 | 2.16 | 3.00 | 3.60 | 4.49 | 5.39 | 5.39 | 6.75 | 8.10 | 9.72 | 9.72 | 12.2 | 14.6 | 17.6 | 19.5 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 |
| | Allowable Torque | kgf.cm | 18.4 | 22.0 | 30.6 | 36.7 | 45.8 | 55.0 | 55.0 | 68.9 | 82.7 | 99.2 | 99.2 | 124 | 149 | 180 | 199 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |

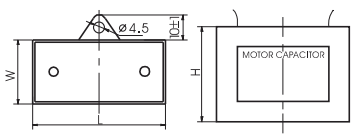
## Gearbox Dimension




Detailed gearbox output shaft dimension

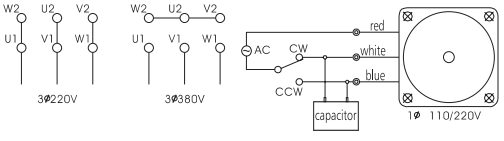
| | Reduction Ratio | L(mm) | Q(kg) |
|---|---|---|---|
| Gearbox | 5GU3K-GU9K | 65 | 1.21 |
| | 5GU10K-GU18K | | 1.30 |
| | 5GU20K-GU75K | | 1.40 |
| | 5GU90K-GU200K | | 1.45 |
| Motor | | | 3.60 |

## Capacitor




| capacity μF Allowable Deviation± 5% | Voltage | L±1 | W±1 | H±1 | Type |
|---|---|---|---|---|---|
| | V | mm | mm | mm | |
| 7.0 | 450 | 47 | 26 | 38 | Down-lead |
| 8.0 | 450 | 47 | 26 | 38 | |
| 25.0 | 250 | 68 | 32 | 56 | |

## Wiring Diagram



# Induction Motor 120W

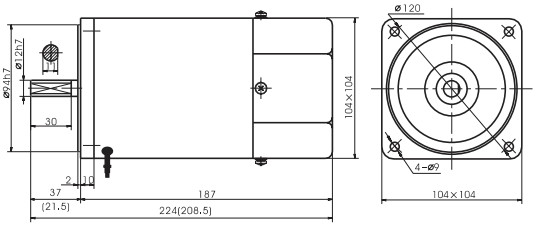
## Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | Rated | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Speed | Current | Torque | | | | |
| Motor | Motor with gear shaft | w | v | Hz | P | | r/min | A | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 6IK120A-AF | 6IK120GU-AF | 120 | 1ph110 | 50 | 4 | CONT | 1350 | 1.90 | 0.85 | 8.50 | 0.59 | 5.85 | 25.0/250 |
| 6IK120A-CF | 6IK120GU-CF | 120 | 1ph220 | 50 | 4 | CONT | 1350 | 0.92 | 0.85 | 8.50 | 0.75 | 7.50 | 8.0/450 |
| 6IK120A-SF | 6IK120GU-SF | 120 | 3ph220 | 50 | 4 | CONT | 1350 | 0.89 | 0.85 | 8.50 | 3.50 | 35.00 | / |
| 6IK120A-S3F | 6IK120GU-S3F | 120 | 3ph380 | 50 | 4 | CONT | 1350 | 0.51 | 0.85 | 8.50 | 3.50 | 35.00 | / |
| 6IK120A-DF | | 120 | 1ph220 | 50 | 2 | CONT | 2800 | 0.88 | 0.40 | 4.00 | 0.42 | 4.15 | 8.0/450 |

◆The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage.

◆Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Motor Dimension





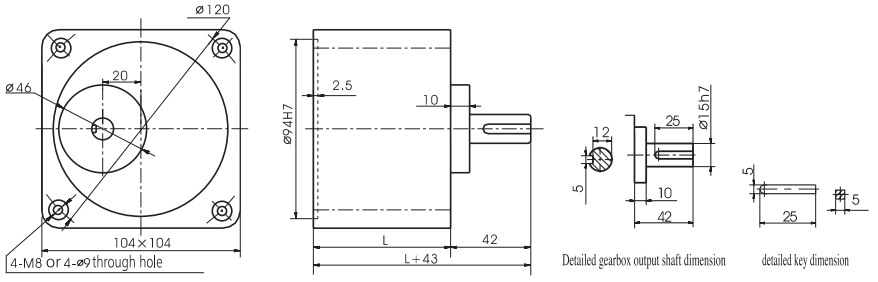

◆The value in the ( ) is the value of small gear shaft motor.

## Gearbox Torque and Speed

**Model of Gearbox: 6GU□K**

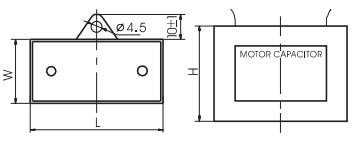
| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 | 180 | 200 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 | 8 | 7.5 |
| | Allowable Torque | N.m | 2.06 | 2.48 | 3.44 | 4.13 | 5.16 | 6.19 | 6.19 | 7.75 | 9.30 | 11.2 | 11.2 | 14.0 | 16.8 | 20.0 | 22.4 | 28.0 | 33.6 | 39.2 | 39.2 | 39.2 | 39.2 | 39.2 | 39.2 | 39.2 |
| | | kgf.cm | 21.0 | 25.3 | 35.1 | 42.1 | 52.6 | 63.2 | 63.2 | 79.1 | 94.9 | 114 | 114 | 143 | 171 | 206 | 228 | 286 | 343 | 400 | 400 | 400 | 400 | 400 | 400 | 400 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 | 10 | 9 |
| | | N.m | 1.74 | 2.09 | 2.90 | 3.48 | 4.35 | 5.22 | 5.22 | 6.54 | 7.85 | 9.42 | 9.42 | 11.8 | 14.2 | 17.0 | 18.9 | 23.6 | 28.4 | 35.5 | 39.2 | 39.2 | 39.2 | 39.2 | 39.2 | 39.2 |
| | Allowable Torque | kgf.cm | 17.8 | 21.3 | 29.6 | 35.5 | 44.4 | 53.3 | 53.3 | 69.7 | 80.0 | 96.1 | 96.1 | 121 | 146 | 174 | 193 | 241 | 289 | 362 | 400 | 400 | 400 | 400 | 400 | 400 |

## Gearbox Dimension



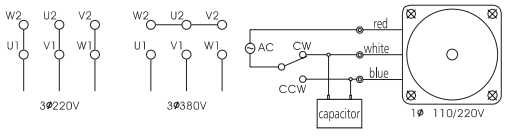

| | Reduction Ratio | L(mm) | Q(kg) |
|---|---|---|---|
| Gearbox | 6GU3K-GU9K | 72 | 1.87 |
| | 6GU10K-GU18K | | 2.10 |
| | 6GU20K-GU200K | | 2.75 |
| Motor | | | 4.80 |

## Capacitor




| capacity μF Allowable Deviation± 5% | Voltage | L±1 | W±1 | H±1 | Type |
|---|---|---|---|---|---|
| | V | mm | mm | mm | |
| 8.0 | 450 | 47 | 26 | 38 | Down-lead |
| 25.0 | 250 | 68 | 32 | 56 | |

## Wiring Diagram



# Induction Motor 140W

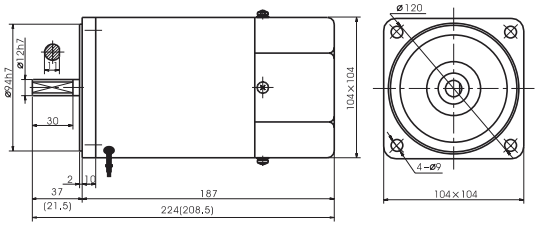
## Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | Rated | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Speed | Current | Torque | | | | |
| Motor | Motor with gear shaft | w | v | Hz | P | | r/min | A | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 6IK140A-AF | 6IK140GU-AF | 140 | 1ph110 | 50 | 4 | CONT | 1350 | 2.00 | 0.99 | 9.95 | 0.90 | 9.00 | 30.0/250 |
| 6IK140A-CF | 6IK140GU-CF | 140 | 1ph220 | 50 | 4 | CONT | 1350 | 1.13 | 0.99 | 9.95 | 0.90 | 9.00 | 10.0/450 |
| 6IK140A-SF | 6IK140GU-SF | 140 | 3ph220 | 50 | 4 | CONT | 1350 | 0.95 | 0.99 | 9.95 | 3.50 | 35.00 | / |
| 6IK140A-S3F | 6IK140GU-S3F | 140 | 3ph380 | 50 | 4 | CONT | 1350 | 0.55 | 0.99 | 9.95 | 3.50 | 35.00 | / |
| 6IK140A-DF | | 140 | 1ph220 | 50 | 2 | CONT | 2800 | 0.88 | 0.45 | 4.50 | 0.44 | 4.40 | 10.0/450 |

◆The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage.

◆Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Motor Dimension





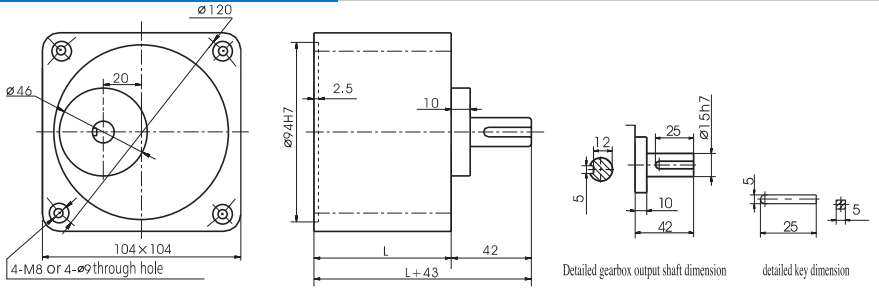

◆The value in the ( ) is the value of small gear shaft motor.

## Gearbox Torque and Speed

**Model of Gearbox: 6GU□K**

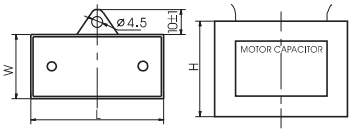
| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 | 180 | 200 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 | 8 | 7.5 |
| | Allowable Torque | N.m | 2.36 | 2.83 | 3.93 | 4.71 | 5.89 | 7.07 | 7.07 | 8.85 | 10.6 | 12.7 | 12.7 | 16.0 | 19.2 | 23.0 | 25.6 | 32.0 | 38.4 | 39.2 | 39.2 | 39.2 | 39.2 | 39.2 | 39.2 | 39.2 |
| | | kgf.cm | 24.1 | 28.8 | 40.1 | 48.1 | 60.1 | 72.1 | 72.1 | 90.3 | 108 | 130 | 130 | 163 | 196 | 235 | 261 | 327 | 392 | 400 | 400 | 400 | 400 | 400 | 400 | 400 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 | 10 | 9 |
| | | N.m | 2.03 | 2.44 | 3.39 | 4.06 | 5.08 | 6.09 | 6.09 | 7.60 | 9.15 | 11.0 | 11.0 | 13.8 | 16.6 | 19.9 | 22.1 | 27.6 | 33.1 | 39.2 | 39.2 | 39.2 | 39.2 | 39.2 | 39.2 | 39.2 |
| | Allowable Torque | kgf.cm | 20.7 | 24.9 | 34.6 | 41.2 | 51.8 | 62.1 | 62.1 | 77.6 | 93.4 | 112 | 112 | 141 | 169 | 203 | 226 | 282 | 338 | 400 | 400 | 400 | 400 | 400 | 400 | 400 |

## Gearbox Dimension



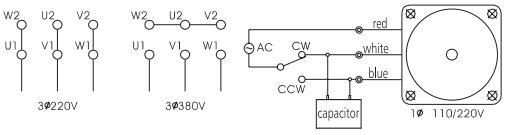

| | Reduction Ratio | L(mm) | Q(kg) |
|---|---|---|---|
| Gearbox | 6GU3K-GU9K | 72 | 1.87 |
| | 6GU10K-GU18K | | 2.10 |
| | 6GU20K-GU200K | | 2.75 |
| Motor | | | 5.00 |

## Capacitor




| capacity μF Allowable Deviation± 5% | Voltage | L±1 | W±1 | H±1 | Type |
|---|---|---|---|---|---|
| | V | mm | mm | mm | |
| 10.0 | 450 | 47 | 26 | 38 | Down-lead |
| 30.0 | 250 | 68 | 32 | 56 | |

## Wiring Diagram



# AC Reversible Motor 6W

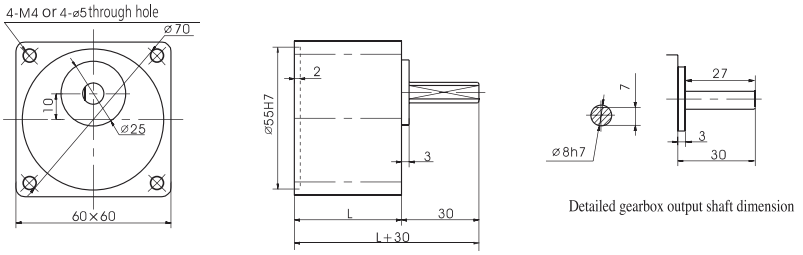


## List of Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | Rated | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Speed | Current | Torque | | | | |
| Motor | Motor with gear shaft | W | V | Hz | P | | r/min | A | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 2RK6A-A | 2RK6GN-A | 6 | 1ph110 | 50 | 4 | 30Min | 1250 | 0.22 | 0.05 | 0.45 | 0.06 | 0.60 | 3.5/250 |
| 2RK6A-C | 2RK6GN-C | 6 | 1ph220 | 50 | 4 | 30Min | 1250 | 0.11 | 0.05 | 0.45 | 0.06 | 0.60 | 1.0/450 |

■The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage. ■Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Overall Dimension of Gearbox




Detailed gearbox output shaft dimension

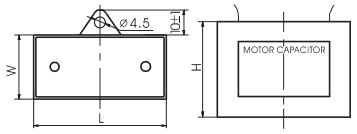
| | Reduction Ratio | L(mm) | Weight (kg) |
|---|---|---|---|
| Gearbox | **2GN3K-GN18K** | 32 | 0.24 |
| | **2GN20K-GN50K** | 42 | 0.30 |
| | **2GN60K-GN200K** | | 0.33 |
| Motor | | | 0.71 |

## Allowable Torque on Gearbox

**Model of Gearbox:2GN☐K**

| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 |
| | Allowable Torque | N.m | 0.13 | 0.15 | 0.21 | 0.26 | 0.31 | 0.38 | 0.42 | 0.53 | 0.63 | 0.76 | 0.76 | 0.95 | 1.14 | 1.36 | 1.52 | 1.72 | 2.06 | 2.57 | 2.94 | 2.94 | 2.94 | 2.94 |
| | | kgf.cm | 1.3 | 1.5 | 2.1 | 2.6 | 3.2 | 3.9 | 4.3 | 5.4 | 6.4 | 7.7 | 7.7 | 9.7 | 11.6 | 13.9 | 15.5 | 17.5 | 21.0 | 26.2 | 30.0 | 30.0 | 30.0 | 30.0 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 360 | 240 | 200 | 180 | 144 | 120 | 100 | 80 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 |
| | Allowable Torque | N.m | 0.10 | 0.13 | 0.17 | 0.21 | 0.26 | 0.30 | 0.34 | 0.43 | 0.51 | 0.62 | 0.62 | 0.76 | 0.92 | 1.11 | 1.24 | 1.39 | 1.67 | 2.09 | 2.50 | 2.78 | 2.94 | 2.94 |
| | | kgf.cm | 1.0 | 1.3 | 1.7 | 2.1 | 2.6 | 3.1 | 3.5 | 4.4 | 5.2 | 6.3 | 6.3 | 7.8 | 9.4 | 11.3 | 12.6 | 14.2 | 17.0 | 21.3 | 25.5 | 28.4 | 30.0 | 30.0 |

## Capacitor

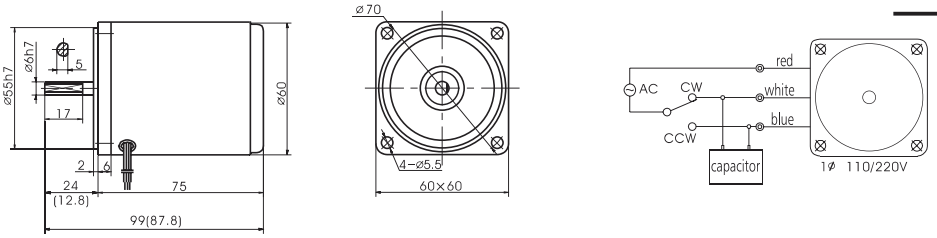



| capacity μF | Voltage | L± 1 | W± 1 | H± 1 | Type |
|---|---|---|---|---|---|
| Allowable Deviation± 5% | V | mm | mm | mm | |
| 1.0 | 450 | 37 | 14 | 28 | Down-lead |
| 3.5 | 250 | 47 | 22 | 34 | |

**Model of Gearbox:2GN☐K**

| Frequency | Reduction Ratio | | 180 | 200 |
|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 8 | 7.5 |
| | Allowable Torque | N.m | 2.94 | 2.94 |
| | | kgf.cm | 30.0 | 30.0 |
| 60Hz | Output Shaft Speed | r/min | 10 | 9 |
| | Allowable Torque | N.m | 2.94 | 2.94 |
| | | kgf.cm | 30.0 | 30.0 |

## Motor Overall Dimension





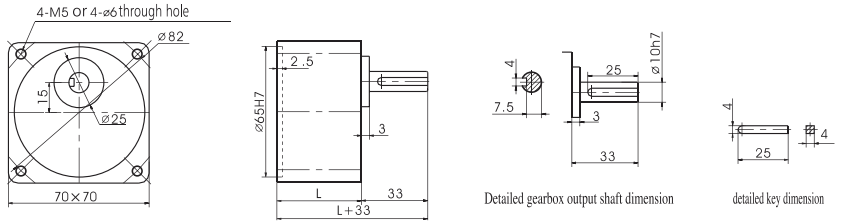
■The value in the ( ) is the value of small gear shaft motor.

## List of Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | Rated | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Speed | Current | Torque | | | | |
| Motor | Motor with gear shaft | W | V | Hz | P | | r/min | A | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 3RK15A-A | 3RK15GN-A | 15 | 1ph110 | 50 | 4 | 30Min | 1300 | 0.32 | 0.11 | 0.10 | 0.12 | 1.15 | 6.0/250 |
| 3RK15A-C | 3RK15GN-C | 15 | 1ph220 | 50 | 4 | 30Min | 1300 | 0.17 | 0.11 | 0.10 | 0.12 | 1.20 | 1.5/450 |

■The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage. ■Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Overall Dimension of Gearbox



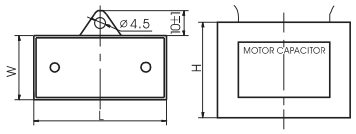

| | Reduction Ratio | L(mm) | Weight(kg) |
|---|---|---|---|
| Gearbox | 3GN3K-GN18K | 32 | 0.38 |
| | 3GN20K-GN50K | 42 | 0.47 |
| | 3GN60K-GN200K | | 0.52 |
| Motor | | | 1.5 |

## Allowable Torque on Gearbox

**Model of Gearbox:3GN☐K**

| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 |
| | Allowable Torque | N.m | 0.31 | 0.38 | 0.53 | 0.64 | 0.79 | 0.95 | 1.06 | 1.32 | 1.59 | 1.90 | 1.90 | 2.37 | 2.85 | 3.42 | 3.81 | 4.28 | 4.90 | 4.90 | 4.90 | 4.90 | 4.90 | 4.90 |
| | | kgf.cm | 3.2 | 3.9 | 5.4 | 6.5 | 8.1 | 9.7 | 10.8 | 13.5 | 16.2 | 19.4 | 19.4 | 24.2 | 29.1 | 34.9 | 38.8 | 43.6 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 |
| | Allowable Torque | N.m | 0.29 | 0.35 | 0.50 | 0.60 | 0.75 | 0.89 | 0.99 | 1.25 | 1.49 | 1.79 | 1.79 | 2.24 | 2.68 | 3.22 | 3.58 | 4.02 | 4.83 | 4.90 | 4.90 | 4.90 | 4.90 | 4.90 |
| | | kgf.cm | 3.0 | 3.6 | 5.1 | 6.1 | 7.6 | 9.1 | 10.1 | 12.7 | 15.2 | 18.2 | 18.2 | 22.8 | 27.3 | 32.8 | 36.5 | 41.0 | 49.2 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 |

## Capacitor

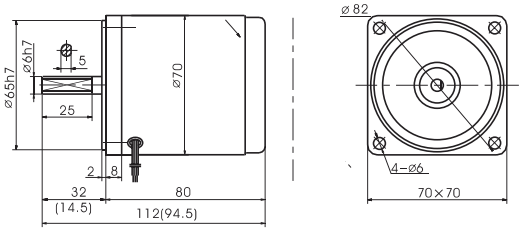


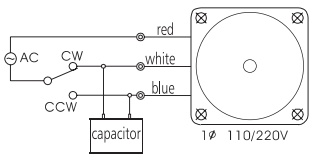

| capacity μF | Voltage | L± 1 | W± 1 | H± 1 | Type |
|---|---|---|---|---|---|
| Allowable Deviation± 5% | V | mm | mm | mm | |
| 1.5 | 450 | 37 | 14 | 28 | Down-lead |
| 6.0 | 250 | 47 | 26 | 38 | |

**Model of Gearbox:3GN☐K**

| Frequency | Reduction Ratio | | 180 | 200 |
|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 8 | 7.5 |
| | Allowable Torque | N.m | 4.90 | 4.90 |
| | | kgf.cm | 50.0 | 50.0 |
| 60Hz | Output Shaft Speed | r/min | 10 | 9 |
| | Allowable Torque | N.m | 4.90 | 4.90 |
| | | kgf.cm | 50.0 | 50.0 |

## Motor Overall Dimension




**Wiring Diagram**

# AC Reversible Motor 25W

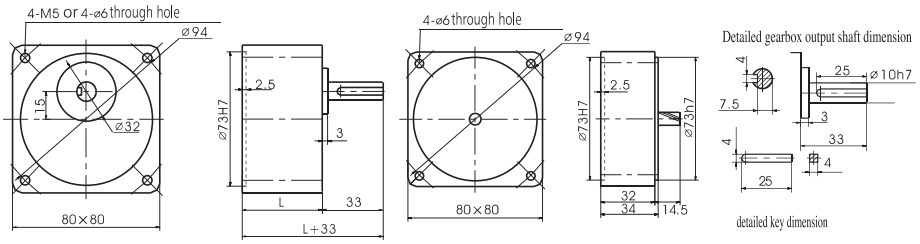


## List of Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | Rated | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Speed | Current | Torque | | | | |
| Motor | Motor with gear shaft | W | V | Hz | P | | r/min | A | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 4RK25A-A | 4RK25GN-A | 25 | 1ph110 | 50 | 4 | 30Min | 1350 | 0.48 | 0.18 | 1.80 | 0.17 | 1.65 | 8.0/250 |
| 4RK25A-C | 4RK25GN-C | 25 | 1ph220 | 50 | 4 | 30Min | 1350 | 0.28 | 0.18 | 1.80 | 0.20 | 2.00 | 2.2/450 |

■The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage. ■Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Overall Dimension of Gearbox



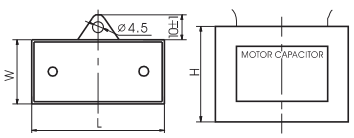

| | Reduction Ratio | L(mm) | Weight(kg) |
|---|---|---|---|
| Gearbox | **4GN3K-GN18K** | 32 | 0.43 |
| | **4GN20K-GN50K** | 43.5 | 0.57 |
| | **4GN60K-GN200K** | | 0.61 |
| Intermediate Gearbox | **4GN10X** | 32 | 0.43 |
| Motor | | | 1.47 |

## Allowable Torque on Gearbox

**Model of Gearbox:4GN☐K**

| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **50Hz** | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 |
| | Allowable Torque | N.m | 0.52 | 0.63 | 0.87 | 1.05 | 1.31 | 1.57 | 1.74 | 2.19 | 2.62 | 3.15 | 3.15 | 3.94 | 4.72 | 5.66 | 6.29 | 7.12 | 7.84 | 7.84 | 7.84 | 7.84 | 7.84 | 7.84 |
| | | kgf.cm | 5.3 | 6.4 | 8.9 | 10.7 | 13.4 | 16.0 | 17.8 | 22.3 | 26.7 | 32.1 | 32.1 | 40.2 | 48.2 | 57.8 | 64.2 | 72.6 | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 |
| **60Hz** | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 |
| | Allowable Torque | N.m | 0.43 | 0.51 | 0.72 | 0.85 | 1.07 | 1.28 | 1.43 | 1.78 | 2.15 | 2.57 | 2.58 | 3.22 | 3.86 | 4.64 | 5.16 | 5.86 | 6.99 | 7.84 | 7.84 | 7.84 | 7.84 | 7.84 |
| | | kgf.cm | 4.4 | 5.2 | 7.3 | 8.7 | 10.9 | 13.1 | 14.6 | 18.2 | 21.9 | 26.2 | 26.3 | 32.9 | 39.4 | 47.3 | 52.6 | 59.4 | 71.3 | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 |

## Capacitor

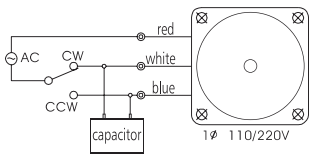



| capacity μF | Voltage | L± 1 | W± 1 | H± 1 | Type |
|---|---|---|---|---|---|
| Allowable Deviation± 5% | V | mm | mm | mm | |
| 2.2 | 450 | 38 | 18 | 28 | Down-lead |
| 8.0 | 250 | 47 | 26 | 38 | |

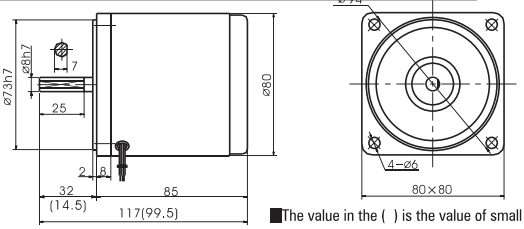
**Model of Gearbox:4GN☐K**

| Frequency | Reduction Ratio | | 180 | 200 |
|---|---|---|---|---|
| **50Hz** | Output Shaft Speed | r/min | 8 | 7.5 |
| | Allowable Torque | N.m | 7.84 | 7.84 |
| | | kgf.cm | 80.0 | 80.0 |
| **60Hz** | Output Shaft Speed | r/min | 10 | 9 |
| | Allowable Torque | N.m | 7.84 | 7.84 |
| | | kgf.cm | 80.0 | 80.0 |

## Wiring Diagram




## Motor Overall Dimension




■The value in the ( ) is the value of small gear shaft motor.

# AC Reversible Motor 40W

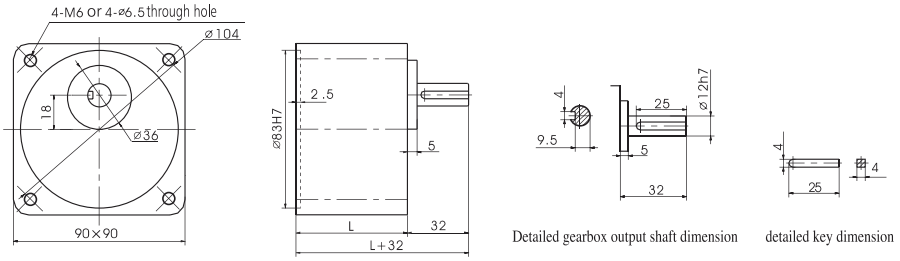


## List of Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | Rated | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Speed | Current | Torque | | | | |
| Motor | Motor with gear shaft | W | V | Hz | P | | r/min | A | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 5RK40A-A | 5RK40GN-A | 40 | 1ph110 | 50 | 4 | 30Min | 1350 | 0.68 | 0.29 | 2.85 | 0.30 | 3.00 | 12.0/250 |
| 5RK40A-C | 5RK40GN-C | 40 | 1ph220 | 50 | 4 | 30Min | 1350 | 0.35 | 0.29 | 2.85 | 0.30 | 3.00 | 3.0/450 |

■The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage. ■Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Overall Dimension of Gearbox



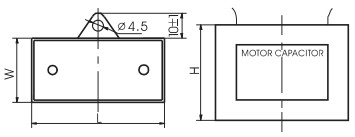

| | Reduction Ratio | L(mm) | Weight (kg) |
|---|---|---|---|
| Gearbox | 5GN3K-GN18K | 42 | 0.73 |
| | 5GN20K-GN36K | 60 | 1.03 |
| | 5GN40K-GN200K | | 1.13 |
| Motor | | | 2.30 |

## Allowable Torque on Gearbox

**Model of Gearbox:5GN☐K**

| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 |
| | Allowable Torque | N.m | 0.68 | 0.82 | 1.14 | 1.37 | 1.72 | 2.06 | 2.29 | 2.86 | 3.43 | 4.13 | 4.59 | 5.16 | 6.20 | 7.44 | 8.26 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 |
| | | kgf.cm | 6.94 | 8.37 | 11.6 | 14.0 | 17.6 | 21.0 | 23.4 | 29.2 | 35.0 | 42.1 | 46.8 | 52.6 | 63.3 | 75.9 | 84.3 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 |
| | Allowable Torque | N.m | 0.58 | 0.70 | 0.97 | 1.16 | 1.45 | 1.74 | 1.93 | 2.41 | 2.90 | 3.48 | 3.87 | 4.36 | 5.23 | 6.28 | 6.97 | 8.72 | 9.46 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 |
| | | kgf.cm | 5.92 | 7.14 | 9.90 | 11.8 | 10.8 | 17.7 | 19.7 | 24.6 | 29.6 | 35.5 | 39.5 | 44.5 | 53.4 | 64.1 | 71.1 | 89.0 | 96.5 | 100 | 100 | 100 | 100 | 100 |

## Capacitor

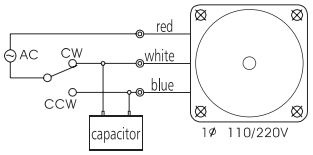



| capacity μF | Voltage | L± 1 | W± 1 | H± 1 | Type |
|---|---|---|---|---|---|
| Allowable Deviation± 5% | V | mm | mm | mm | |
| 3.0 | 450 | 47 | 22 | 34 | Down-lead |
| 12.0 | 250 | 57 | 32 | 46 | |

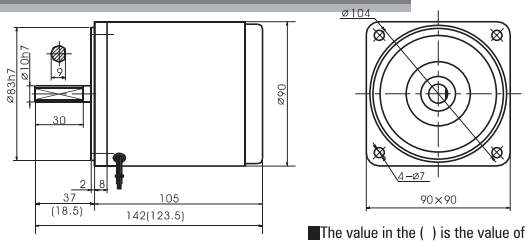
**Model of Gearbox:5GN☐K**

| Frequency | Reduction Ratio | | 180 | 200 |
|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 8 | 7.5 |
| | Allowable Torque | N.m | 9.80 | 9.80 |
| | | kgf.cm | 100 | 100 |
| 60Hz | Output Shaft Speed | r/min | 10 | 9 |
| | Allowable Torque | N.m | 9.80 | 9.80 |
| | | kgf.cm | 100 | 100 |

## Wiring Diagram




## Motor Overall Dimension




■The value in the ( ) is the value of small gear shaft motor.

# AC Reversible Motor 60W

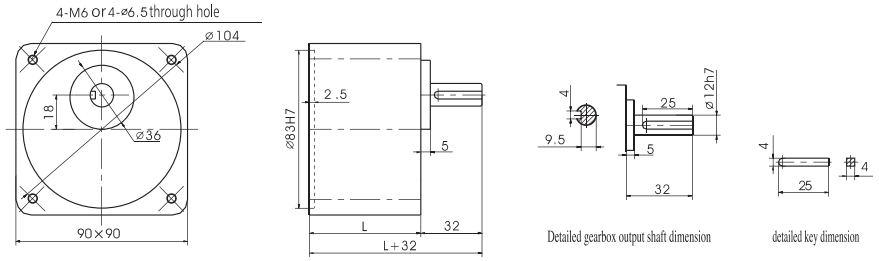


## List of Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | Rated | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Speed | Current | Torque | | | | |
| Motor | Motor with gear shaft | W | V | Hz | P | | r/min | A | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 5RK60A-AF | 5RK60GN-AF | 60 | 1ph110 | 50 | 4 | 30Min | 1350 | 1.10 | 0.44 | 4.40 | 0.45 | 4.50 | 18/250 |
| 5RK60A-CF | 5RK60GN-CF | 60 | 1ph220 | 50 | 4 | 30Min | 1350 | 0.54 | 0.44 | 4.40 | 0.45 | 4.50 | 4.5/450 |

●The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage. ●Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Overall Dimension of Gearbox



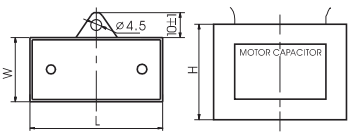

| | Reduction Ratio | L(mm) | Weight(kg) |
|---|---|---|---|
| Gearbox | 5GN3K-GN18K | 42 | 0.73 |
| | 5GN20K-GN36K | 60 | 1.03 |
| | 5GN40K-GN200K | | 1.13 |
| Motor | | | 2.30 |

## Allowable Torque on Gearbox

**Model of Gearbox:5GN☐K**

| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 |
| | Allowable Torque | N.m | 1.03 | 1.24 | 1.72 | 2.6 | 2.58 | 3.10 | 3.10 | 3.88 | 4.65 | 5.38 | 5.60 | 7.01 | 8.41 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 |
| | | kgf.cm | 10.5 | 12.7 | 17.6 | 21.0 | 26.3 | 31.6 | 31.6 | 39.6 | 47.4 | 54.9 | 57.1 | 71.6 | 85.8 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 |
| | Allowable Torque | N.m | 0.9 | 1.08 | 1.50 | 1.80 | 2.23 | 2.70 | 2.70 | 3.38 | 4.05 | 4.88 | 4.88 | 6.10 | 7.33 | 8.79 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 |
| | | kgf.cm | 9.18 | 11.0 | 15.3 | 18.4 | 23.0 | 27.6 | 27.6 | 34.5 | 41.3 | 49.5 | 49.5 | 62.2 | 74.7 | 90.0 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

## Capacitor

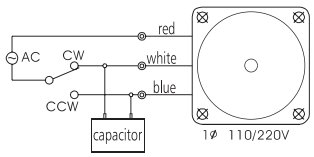



| capacity μF | Voltage | L± 1 | W± 1 | H± 1 | Type |
|---|---|---|---|---|---|
| Allowable Deviation± 5% | V | mm | mm | mm | |
| 4.5 | 450 | 47 | 22 | 34 | Down-lead |
| 18.0 | 250 | 68 | 32 | 56 | |

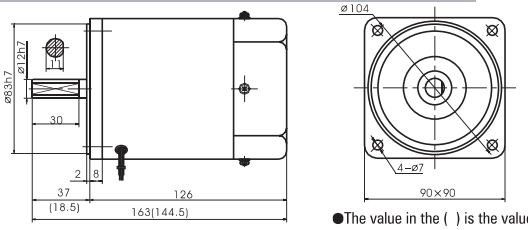
**Model of Gearbox:5GN☐K**

| Frequency | Reduction Ratio | | 180 | 200 |
|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 8 | 7.5 |
| | Allowable Torque | N.m | 9.80 | 9.80 |
| | | kgf.cm | 100 | 100 |
| 60Hz | Output Shaft Speed | r/min | 10 | 9 |
| | Allowable Torque | N.m | 9.80 | 9.80 |
| | | kgf.cm | 100 | 100 |

## Wiring Diagram




## Motor Overall Dimension




●The value in the ( ) is the value of small gear shaft motor.

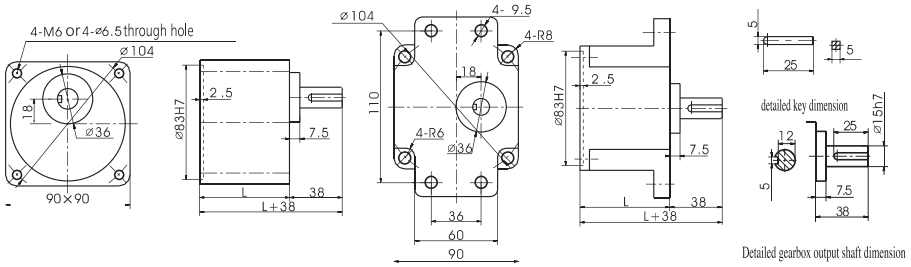


## List of Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | Rated | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Speed | Current | Torque | | | | |
| Motor | Motor with gear shaft | W | V | Hz | P | | r/min | A | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 5RK60A-AF | 5RK60GU-AF | 60 | 1ph110 | 50 | 4 | 30Min | 1350 | 1.10 | 0.44 | 4.40 | 0.45 | 4.50 | 18.0/250 |
| 5RK60A-CF | 5RK60GU-CF | 60 | 1ph220 | 50 | 4 | 30Min | 1300 | 0.54 | 0.44 | 4.40 | 0.45 | 4.50 | 4.5/450 |

●The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage. ●Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Overall Dimension of Gearbox



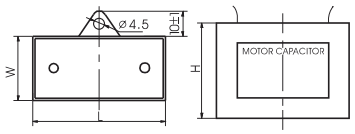

| | Reduction Ratio | L(mm) | Weight (kg) |
|---|---|---|---|
| Gearbox | 5GU3K-GU9K | 65 | 1.21 |
| | 5GU10K-GU18K | | 1.30 |
| | 5GU20K-GU75K | | 1.40 |
| | 5GU90K-GU200K | | 1.45 |
| Motor | | | 2.35 |

## Allowable Torque on Gearbox

**Model of Gearbox: 5GU□K**

| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 |
| | Allowable Torque | N.m | 1.03 | 1.24 | 1.72 | 2.6 | 2.58 | 3.10 | 3.10 | 3.88 | 4.65 | 5.38 | 5.60 | 7.01 | 8.41 | 10.1 | 11.2 | 14.0 | 16.8 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 |
| | | kgf.cm | 10.5 | 12.7 | 17.6 | 21.0 | 26.3 | 31.6 | 31.6 | 39.6 | 47.4 | 54.9 | 57.1 | 71.6 | 85.8 | 103 | 114 | 143 | 171 | 200 | 200 | 200 | 200 | 200 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 |
| | Allowable Torque | N.m | 0.9 | 1.08 | 1.50 | 1.80 | 2.23 | 2.70 | 2.70 | 3.38 | 4.05 | 4.88 | 4.88 | 6.10 | 7.33 | 8.79 | 9.76 | 12.2 | 14.6 | 18.3 | 19.6 | 19.6 | 19.6 | 19.6 |
| | | kgf.cm | 9.18 | 11.0 | 15.3 | 18.4 | 23.0 | 27.6 | 27.6 | 34.5 | 41.3 | 49.5 | 49.5 | 62.2 | 74.7 | 90.0 | 99.8 | 124 | 149 | 187 | 200 | 200 | 200 | 200 |

## Capacitor

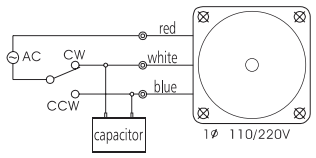



| capacity μF | Voltage | L± 1 | W± 1 | H± 1 | Type |
|---|---|---|---|---|---|
| Allowable Deviation± 5% | V | mm | mm | mm | |
| 4.5 | 450 | 47 | 22 | 34 | Down-lead |
| 18.0 | 250 | 68 | 32 | 56 | |

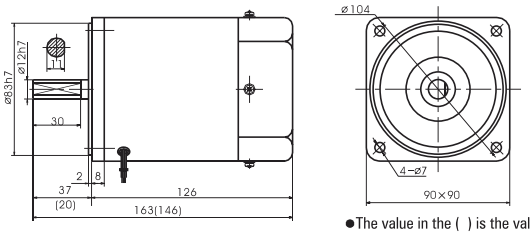
**Model of Gearbox:5GU□K**

| Frequency | Reduction Ratio | | 180 | 200 |
|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 8 | 7.5 |
| | Allowable Torque | N.m | 19.6 | 19.6 |
| | | kgf.cm | 200 | 200 |
| 60Hz | Output Shaft Speed | r/min | 10 | 9 |
| | Allowable Torque | N.m | 19.6 | 19.6 |
| | | kgf.cm | 200 | 200 |

## Wiring Diagram




## Motor Overall Dimension




●The value in the ( ) is the value of small gear shaft motor.

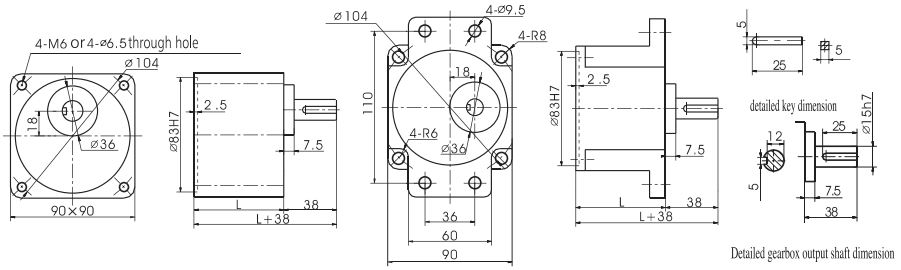


## List of Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | Rated | | | | Staring Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Speed | Current | Torque | | | | |
| Motor | Motor with gear shaft | W | V | Hz | P | | r/min | A | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 5RK90A-AF | 5RK90GU-AF | 90 | 1ph110 | 50 | 4 | 30Min | 1350 | 1.55 | 0.64 | 6.40 | 0.48 | 4.80 | 25.0/250 |
| 5RK90A-CF | 5RK90GU-CF | 90 | 1ph220 | 50 | 4 | 30Min | 1350 | 0.76 | 0.64 | 6.40 | 0.61 | 6.10 | 6.0/450 |

●The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage. ●Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Overall Dimension of Gearbox



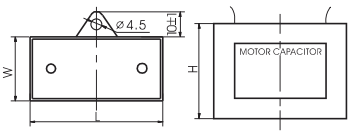

| | Reduction Ratio | L(mm) | Weight (kg) |
|---|---|---|---|
| Gearbox | 5GU3K-GU9K | 65 | 1.21 |
| | 5GU10K-GU18K | | 1.30 |
| | 5GU20K-GU75K | | 1.40 |
| | 5GU90K-GU200K | | 1.45 |
| Motor | | | 3.40 |

## Allowable Torque on Gearbox

**Model of Gearbox: 5GU □K**

| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 |
| | Allowable Torque | N.m | 1.55 | 1.86 | 2.58 | 3.10 | 3.87 | 4.64 | 4.65 | 5.81 | 6.98 | 8.37 | 8.40 | 10.5 | 12.6 | 15.1 | 16.8 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 |
| | | kgf.cm | 15.8 | 19.0 | 29.2 | 31.6 | 39.6 | 47.2 | 47.4 | 59.3 | 71.2 | 85.4 | 85.7 | 107 | 129 | 154 | 171 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 |
| | Allowable Torque | N.m | 1.35 | 1.62 | 2.25 | 2.70 | 3.37 | 4.04 | 4.05 | 5.06 | 6.07 | 7.29 | 7.32 | 9.15 | 11.0 | 13.2 | 14.6 | 18.3 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 |
| | | kgf.cm | 13.8 | 16.5 | 23.0 | 27.6 | 34.4 | 41.2 | 41.3 | 51.6 | 61.9 | 74.4 | 74.7 | 93.4 | 112 | 135 | 149 | 187 | 200 | 200 | 200 | 200 | 200 | 200 |

## Capacitor

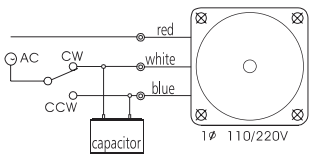



| capacity μF | Voltage | L± 1 | W± 1 | H± 1 | Type |
|---|---|---|---|---|---|
| Allowable Deviation± 5% | V | mm | mm | mm | |
| 6.0 | 450 | 47 | 26 | 38 | Down-lead |
| 25.0 | 250 | 68 | 32 | 56 | |

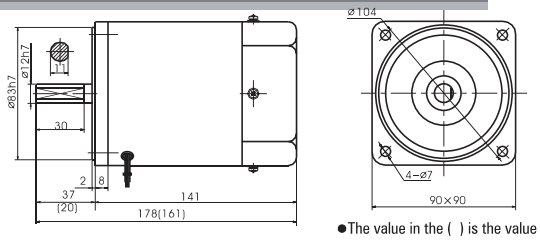
**Model of Gearbox: 5GU □K**

| Frequency | Reduction Ratio | | 180 | 200 |
|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 8 | 7.5 |
| | Allowable Torque | N.m | 19.6 | 19.6 |
| | | kgf.cm | 200 | 200 |
| 60Hz | Output Shaft Speed | r/min | 10 | 9 |
| | Allowable Torque | N.m | 19.6 | 19.6 |
| | | kgf.cm | 200 | 200 |

## Wiring Diagram




## Motor Overall Dimension




●The value in the ( ) is the value of small gear shaft motor.

# AC Reversible Motor120W

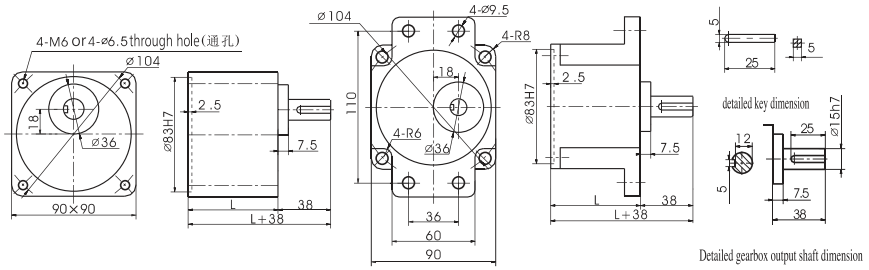


## List of Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | Rated | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Speed | Current | Torque | | | | |
| Motor | Motor with gear shaft | W | V | Hz | P | | r/min | A | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 5RK120A-AF | 5RK120GU-AF | 120 | 1ph110 | 50 | 4 | 30Min | 1250 | 2.10 | 0.90 | 9.00 | 0.78 | 7.80 | 30.0/250 |
| 5RK120A-CF | 5RK120GU-CF | 120 | 1ph220 | 50 | 4 | 30Min | 1300 | 1.10 | 0.87 | 8.65 | 0.85 | 8.50 | 7.0/450 |

●The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage. ●Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Overall Dimension of Gearbox



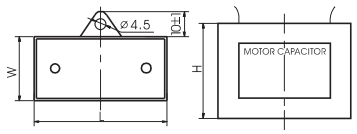

| | Reduction Ratio | L(mm) | Weight (kg) |
|---|---|---|---|
| Gearbox | 5GU3K-GU9K | 65 | 1.21 |
| | 5GU10K-GU18K | | 1.30 |
| | 5GU20K-GU75K | | 1.40 |
| | 5GU90K-GU200K | | 1.45 |
| Motor | | | 3.60 |

## Allowable Torque on Gearbox

**Model of Gearbox: 5GU □ K**

| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 |
| | Allowable Torque | N.m | 2.14 | 2.57 | 3.57 | 4.29 | 5.38 | 6.43 | 6.43 | 8.05 | 9.66 | 11.6 | 11.6 | 14.6 | 17.5 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 |
| | | kgf.cm | 21.8 | 26.2 | 36.4 | 43.8 | 54.7 | 65.6 | 65.6 | 82.1 | 98.6 | 118 | 118 | 149 | 196 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 |
| | Allowable Torque | N.m | 1.80 | 2.16 | 3.00 | 3.60 | 4.49 | 5.39 | 5.39 | 6.75 | 8.10 | 9.72 | 9.72 | 12.2 | 14.6 | 17.6 | 19.5 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 |
| | | kgf.cm | 18.4 | 22.0 | 30.6 | 36.7 | 45.8 | 55.0 | 55.0 | 68.9 | 82.7 | 99.2 | 99.2 | 124 | 149 | 180 | 199 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |

## Capacitor

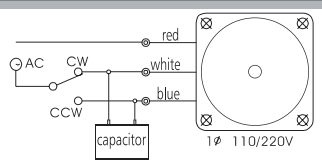



| capacity μF | Voltage | L± 1 | W± 1 | H± 1 | Type |
|---|---|---|---|---|---|
| Allowable Deviation± 5% | V | mm | mm | mm | |
| 7.0 | 450 | 47 | 26 | 38 | Down-lead |
| 30.0 | 250 | 68 | 32 | 56 | |

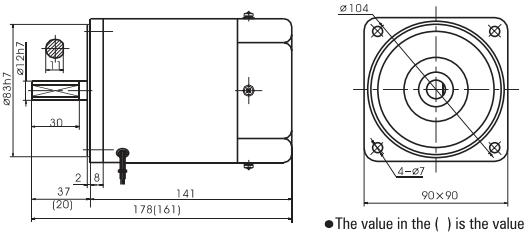
**Model of Gearbox: 5GU □ K**

| Frequency | Reduction Ratio | | 180 | 200 |
|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 8 | 7.5 |
| | Allowable Torque | N.m | 19.6 | 19.6 |
| | | kgf.cm | 200 | 200 |
| 60Hz | Output Shaft Speed | r/min | 10 | 9 |
| | Allowable Torque | N.m | 19.6 | 19.6 |
| | | kgf.cm | 200 | 200 |

## Wiring Diagram




## Motor Overall Dimension




●The value in the ( ) is the value of small gear shaft motor.

# Brake Motor 15W

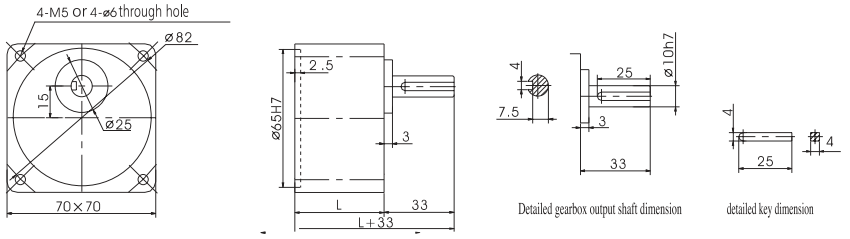


## List of Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | Rated | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Speed | Current | Torque | | | | |
| Motor | Motor with gear shaft | W | V | Hz | P | | r/min | A | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 3RK15A-AM | 3RK15GN-AM | 15 | 1ph110 | 50 | 4 | 30Min | 1300 | 0.32 | 0.11 | 0.10 | 0.12 | 1.15 | 6.0/250 |
| 3RK15A-CM | 3RK15GN-CM | 15 | 1ph220 | 50 | 4 | 30Min | 1300 | 0.17 | 0.11 | 0.10 | 0.12 | 1.20 | 1.5/450 |

●The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage. ●Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Overall Dimension of Gearbox



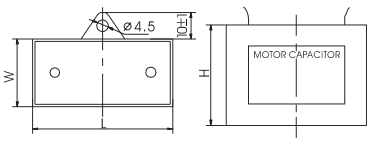

| | Reduction Ratio | L(mm) | Weight(kg) |
|---|---|---|---|
| Gearbox | 3GN3K-GN18K | 32 | 0.38 |
| | 3GN20K-GN50K | 42 | 0.47 |
| | 3GN60K-GN200K | | 0.52 |
| Motor | | | 1.70 |

## Allowable Torque on Gearbox

**Model of Gearbox: 3GN □K**

| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 |
| | Allowable Torque | N.m | 0.31 | 0.38 | 0.53 | 0.64 | 0.79 | 0.95 | 1.06 | 1.32 | 1.59 | 1.90 | 1.90 | 2.37 | 2.85 | 3.42 | 3.81 | 4.28 | 4.90 | 4.90 | 4.90 | 4.90 | 4.90 | 4.90 |
| | | kgf.cm | 3.2 | 3.9 | 5.4 | 6.5 | 8.1 | 9.7 | 10.8 | 13.5 | 16.2 | 19.4 | 19.4 | 24.2 | 29.1 | 34.9 | 38.8 | 43.6 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 |
| | Allowable Torque | N.m | 0.29 | 0.35 | 0.50 | 0.60 | 0.75 | 0.89 | 0.99 | 1.25 | 1.49 | 1.79 | 1.79 | 2.24 | 2.68 | 3.22 | 3.58 | 4.02 | 4.83 | 4.90 | 4.90 | 4.90 | 4.90 | 4.90 |
| | | kgf.cm | 3.0 | 3.6 | 5.1 | 6.1 | 7.6 | 9.1 | 10.1 | 12.7 | 15.2 | 18.2 | 18.2 | 22.8 | 27.3 | 32.8 | 36.5 | 41.0 | 49.2 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 |

## Capacitor

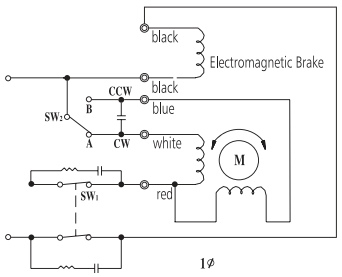



| capacity μF | Voltage | L± 1 | W± 1 | H± 1 | Type |
|---|---|---|---|---|---|
| Allowable Deviation± 5% | V | mm | mm | mm | |
| 1.5 | 450 | 37 | 14 | 28 | Down-lead |
| 6.0 | 250 | 47 | 26 | 38 | |

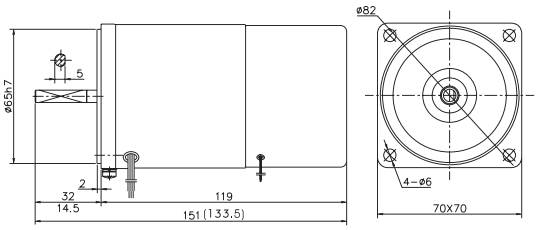
**Model of Gearbox: 3GN □K**

| Frequency | Reduction Ratio | | 180 | 200 |
|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 8 | 7.5 |
| | Allowable Torque | N.m | 4.90 | 4.90 |
| | | kgf.cm | 50.0 | 50.0 |
| 60Hz | Output Shaft Speed | r/min | 10 | 9 |
| | Allowable Torque | N.m | 4.90 | 4.90 |
| | | kgf.cm | 50.0 | 50.0 |

## Wiring Diagram




## Motor Overall Dimension




●The value in the ( ) is the value of small gear shaft motor.

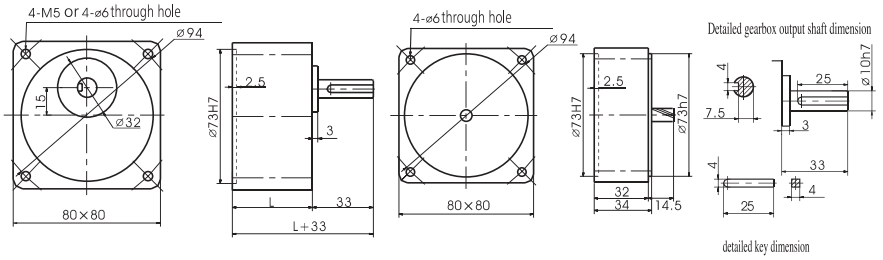


## List of Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | Rated | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Speed | Current | Torque | | | | |
| Motor | Motor with gear shaft | W | V | Hz | P | | r/min | A | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 4RK25A-AM | 4RK25GN-AM | 25 | 1ph110 | 50 | 4 | 30Min | 1350 | 0.48 | 0.18 | 1.80 | 0.17 | 1.65 | 8.0/250 |
| 4RK25A-CM | 4RK25GN-CM | 25 | 1ph220 | 50 | 4 | 30Min | 1350 | 0.24 | 0.18 | 1.80 | 0.14 | 1.40 | 2.2/450 |
| 4RK25A-SM | 4RK25GN-SM | 25 | 3ph220 | 50 | 4 | 30Min | 1300 | 0.25 | 0.19 | 1.88 | 0.52 | 5.16 | / |
| 4RK25A-S3M | 4RK25GN-S3M | 25 | 3ph380 | 50 | 4 | 30Min | 1300 | 0.14 | 0.19 | 1.88 | 0.52 | 5.16 | / |

●The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage. ●Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Overall Dimension of Gearbox



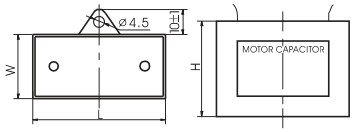

| | Reduction Ratio | L(mm) | Weight (kg) |
|---|---|---|---|
| Gearbox | 4GN3K-GN18K | 32 | 0.43 |
| | 4GN20K-GN50K | 43.5 | 0.57 |
| | 4GN60K-GN200K | | 0.61 |
| Intermediate Gearbox | 4GN10X | 32 | 0.43 |
| Motor | | | 2.00 |

## Allowable Torque on Gearbox

**Model of Gearbox: 4GN □ K**

| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 |
| | Allowable Torque | N.m | 0.52 | 0.63 | 0.87 | 1.05 | 1.31 | 1.57 | 1.74 | 2.19 | 2.62 | 3.15 | 3.15 | 3.94 | 4.72 | 5.66 | 6.29 | 7.12 | 7.84 | 7.84 | 7.84 | 7.84 | 7.84 | 7.84 |
| | | kgf.cm | 5.3 | 6.4 | 8.9 | 10.7 | 13.4 | 16.0 | 17.8 | 22.3 | 26.7 | 32.1 | 32.1 | 40.2 | 48.2 | 57.8 | 64.2 | 72.6 | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 |
| | Allowable Torque | N.m | 0.43 | 0.51 | 0.72 | 0.85 | 1.07 | 1.28 | 1.43 | 1.78 | 2.15 | 2.57 | 2.58 | 3.22 | 3.86 | 4.64 | 5.16 | 5.82 | 6.99 | 7.84 | 7.84 | 7.84 | 7.84 | 7.84 |
| | | kgf.cm | 4.4 | 5.2 | 7.3 | 8.7 | 10.9 | 13.1 | 14.6 | 18.2 | 21.9 | 26.2 | 26.3 | 32.9 | 39.4 | 47.3 | 52.6 | 59.4 | 71.3 | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 |

## Capacitor

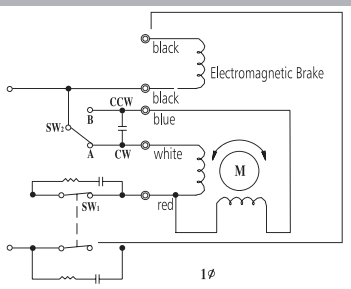



| capacity μF | Voltage | L± 1 | W± 1 | H± 1 | Type |
|---|---|---|---|---|---|
| Allowable Deviation± 5% | V | mm | mm | mm | |
| 2.2 | 450 | 38 | 18 | 28 | Down-lead |
| 8.0 | 250 | 47 | 26 | 38 | |

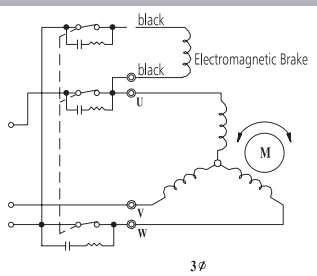
**Model of Gearbox: 4GN □ K**

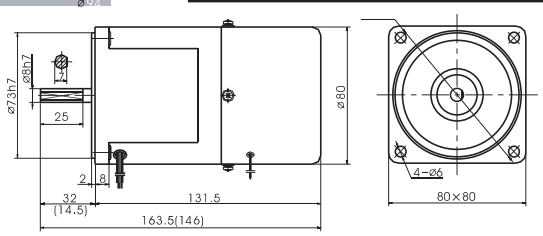
| Frequency | Reduction Ratio | | 180 | 200 |
|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 8 | 7.5 |
| | Allowable Torque | N.m | 7.84 | 7.84 |
| | | kgf.cm | 80.0 | 80.0 |
| 60Hz | Output Shaft Speed | r/min | 10 | 9 |
| | Allowable Torque | N.m | 7.84 | 7.84 |
| | | kgf.cm | 80.0 | 80.0 |

## Wiring Diagram




## Motor Overall Dimension




●The value in the ( ) is the value of small gear shaft motor.

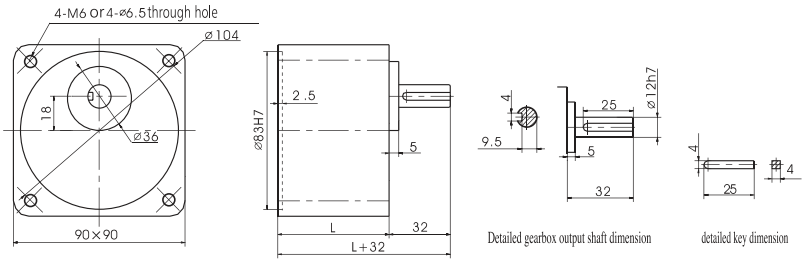


## List of Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | Rated | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Speed | Current | Torque | | | | |
| Motor | Motor with gear shaft | W | V | Hz | P | | r/min | A | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 5RK40A-AM | 5RK40GN-AM | 40 | 1ph110 | 50 | 4 | 30Min | 1350 | 0.68 | 0.29 | 2.85 | 0.30 | 3.00 | 12.0/250 |
| 5RK40A-CM | 5RK40GN-CM | 40 | 1ph220 | 50 | 4 | 30Min | 1350 | 0.35 | 0.29 | 2.85 | 0.30 | 3.00 | 3.0/450 |
| 5RK40A-SM | 5RK40GN-SM | 40 | 3ph220 | 50 | 4 | 30Min | 1350 | 0.38 | 0.29 | 2.90 | 1.15 | 11.5 | / |
| 5RK40A-S3M | 5RK40GN-S3M | 40 | 3ph380 | 50 | 4 | 30Min | 1350 | 0.22 | 0.29 | 2.90 | 1.15 | 11.5 | / |

●The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage. ●Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Overall Dimension of Gearbox



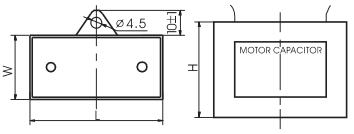

| | Reduction Ratio | L(mm) | Weight (kg) |
|---|---|---|---|
| Gearbox | 5GN3K-GN18K | 42 | 0.73 |
| | 5GN20K-GN36K | 60 | 1.03 |
| | 5GN40K-GN200K | | 1.13 |
| Motor | | | 2.50 |

## Allowable Torque on Gearbox

**Model of Gearbox: 5GN □ K**

| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 |
| | Allowable Torque | N.m | 0.68 | 0.82 | 1.14 | 1.37 | 1.72 | 2.06 | 2.29 | 2.86 | 3.43 | 4.13 | 4.59 | 5.16 | 6.20 | 7.44 | 8.26 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 |
| | | kgf.cm | 6.94 | 8.37 | 11.6 | 14.0 | 17.6 | 21.0 | 23.4 | 29.2 | 35.0 | 42.1 | 46.8 | 52.6 | 63.3 | 75.9 | 84.3 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 |
| | Allowable Torque | N.m | 0.58 | 0.70 | 0.97 | 1.16 | 1.45 | 1.74 | 1.93 | 2.41 | 2.90 | 3.48 | 3.87 | 4.36 | 5.23 | 6.28 | 6.97 | 8.72 | 9.46 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 |
| | | kgf.cm | 5.92 | 7.14 | 9.90 | 11.8 | 10.8 | 17.7 | 19.7 | 24.6 | 29.6 | 35.5 | 39.5 | 44.5 | 53.4 | 64.1 | 71.1 | 89.0 | 96.5 | 100 | 100 | 100 | 100 | 100 |

## Capacitor

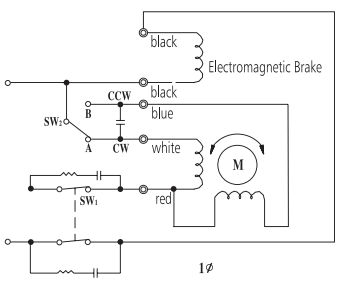


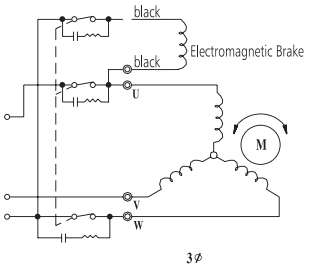

| capacity μF | Voltage | L± 1 | W± 1 | H± 1 | Type |
|---|---|---|---|---|---|
| Allowable Deviation± 5% | V | mm | mm | mm | |
| 3.0 | 450 | 47 | 22 | 34 | Down-lead |
| 12.0 | 250 | 57 | 32 | 46 | |

**Model of Gearbox: 5GN □ K**

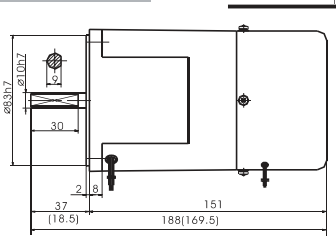
| Frequency | Reduction Ratio | | 180 | 200 |
|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 8 | 7.5 |
| | Allowable Torque | N.m | 9.80 | 9.80 |
| | | kgf.cm | 100 | 100 |
| 60Hz | Output Shaft Speed | r/min | 10 | 9 |
| | Allowable Torque | N.m | 9.80 | 9.80 |
| | | kgf.cm | 100 | 100 |

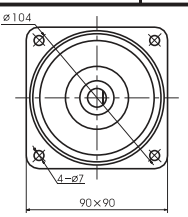
## Wiring Diagram




## Motor Overall Dimension




●The value in the ( ) is the value of small gear shaft motor.

# Brake Motor 60W

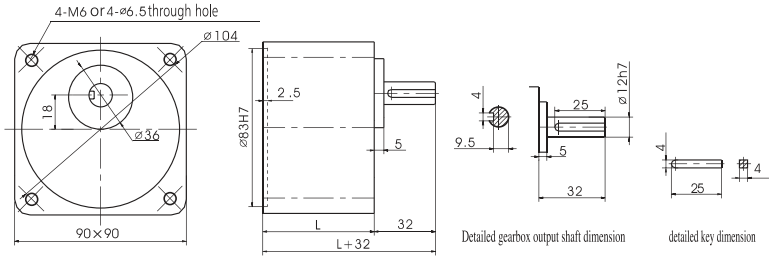


## List of Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | Rated | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Speed | Current | Torque | | | | |
| Motor | Motor with gear shaft | W | V | Hz | P | | r/min | A | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 5RK60A-AMF | 5RK60GN-AMF | 60 | 1ph110 | 50 | 4 | 30Min | 1350 | 1.10 | 0.44 | 4.40 | 0.45 | 4.50 | 18.0/250 |
| 5RK60A-CMF | 5RK60GN-CMF | 60 | 1ph220 | 50 | 4 | 30Min | 1350 | 0.54 | 0.44 | 4.40 | 0.45 | 4.50 | 4.5/450 |
| 5RK60A-SMF | 5RK60GN-SMF | 60 | 3ph220 | 50 | 4 | 30Min | 1350 | 0.49 | 0.46 | 4.55 | 1.70 | 17.00 | / |
| 5RK60A-S$_3$MF | 5RK60GN-S$_3$MF | 60 | 3ph380 | 50 | 4 | 30Min | 1350 | 0.28 | 0.46 | 4.55 | 1.70 | 17.00 | / |

●The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage. ●Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Overall Dimension of Gearbox




| | Reduction Ratio | L(mm) | Weight (kg) |
|---|---|---|---|
| Gearbox | 5GN3K-GN18K | 42 | 0.73 |
| | 5GN20K-GN36K | 60 | 1.03 |
| | 5GN40K-GN200K | | 1.13 |
| Motor | | | 2.60 |

## Allowable Torque on Gearbox

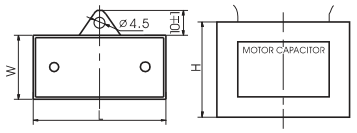
**Model of Gearbox: 5GN □ K**

| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 |
| | Allowable Torque | N.m | 1.03 | 1.24 | 1.72 | 2.6 | 2.58 | 3.10 | 3.10 | 3.88 | 4.65 | 5.38 | 5.60 | 7.01 | 8.41 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 |
| | | kgf.cm | 10.5 | 12.7 | 17.6 | 21.0 | 26.3 | 31.6 | 31.6 | 39.6 | 47.4 | 54.9 | 57.1 | 71.6 | 85.8 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 |
| | Allowable Torque | N.m | 0.9 | 1.08 | 1.50 | 1.80 | 2.23 | 2.70 | 2.70 | 3.38 | 4.05 | 4.88 | 4.88 | 6.10 | 7.33 | 8.79 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 |
| | | kgf.cm | 9.18 | 11.0 | 15.3 | 18.4 | 23.0 | 27.6 | 27.6 | 34.5 | 41.3 | 49.5 | 49.5 | 62.2 | 74.7 | 90.0 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

**Model of Gearbox: 5GN □ K**

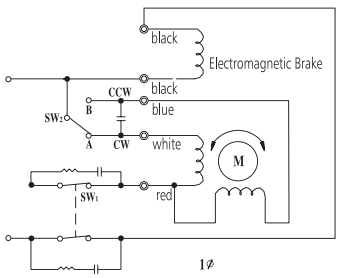
| Frequency | Reduction Ratio | | 180 | 200 |
|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 8 | 7.5 |
| | Allowable Torque | N.m | 9.80 | 9.80 |
| | | kgf.cm | 100 | 100 |
| 60Hz | Output Shaft Speed | r/min | 10 | 9 |
| | Allowable Torque | N.m | 9.80 | 9.80 |
| | | kgf.cm | 100 | 100 |

## Capacitor

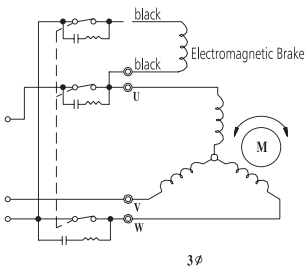


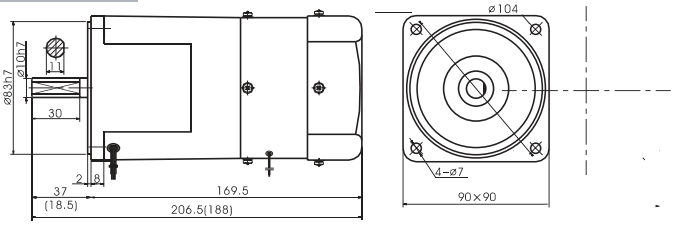

| capacity μF | Voltage | L± 1 | W± 1 | H± 1 | Type |
|---|---|---|---|---|---|
| Allowable Deviation± 5% | V | mm | mm | mm | |
| 4.5 | 450 | 47 | 22 | 34 | |
| 18.0 | 250 | 68 | 32 | 56 | Down-lead |

## Wiring Diagram




## Motor Overall Dimension




●The value in the ( ) is the value of small gear shaft motor.

# Brake Motor 60W

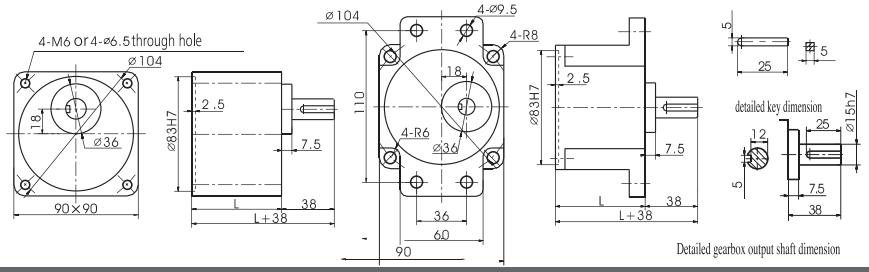


## List of Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | Rated | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Speed | Current | Torque | | | | |
| Motor | Motor with gear shaft | W | V | Hz | P | | r/min | A | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 5RK60A-AMF | 5RK60GU-AMF | 60 | 1ph110 | 50 | 4 | 30Min | 1350 | 1.10 | 0.44 | 4.40 | 0.45 | 4.50 | 18.0/250 |
| 5RK60A-CMF | 5RK60GU-CMF | 60 | 1ph220 | 50 | 4 | 30Min | 1350 | 0.54 | 0.44 | 4.40 | 0.45 | 4.50 | 4.5/450 |
| 5RK60A-SMF | 5RK60GU-SMF | 60 | 3ph220 | 50 | 4 | 30Min | 1350 | 0.49 | 0.46 | 4.55 | 1.70 | 17.00 | / |
| 5RK60A-S$_3$MF | 5RK60GU-S$_3$MF | 60 | 3ph380 | 50 | 4 | 30Min | 1350 | 0.28 | 0.46 | 4.55 | 1.70 | 17.00 | / |

●The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage. ●Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Overall Dimension of Gearbox



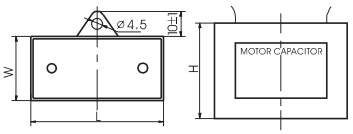

| | Reduction Ratio | L(mm) | Weight (kg) |
|---|---|---|---|
| Gearbox | 5GU3K-GU9K | 65 | 1.21 |
| | 5GU10K-GU18K | | 1.30 |
| | 5GU20K-GU75K | | 1.40 |
| | 5GU90K-GU200K | | 1.45 |
| Motor | | | 2.60 |

## Allowable Torque on Gearbox

**Model of Gearbox: 5GU □ K**

| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 |
| | Allowable Torque | N.m | 1.03 | 1.24 | 1.72 | 2.6 | 2.58 | 3.10 | 3.10 | 3.88 | 4.65 | 5.38 | 5.60 | 7.01 | 8.41 | 10.1 | 11.2 | 14.0 | 16.8 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 |
| | | kgf.cm | 10.5 | 12.7 | 17.6 | 21.0 | 26.3 | 31.6 | 31.6 | 39.6 | 47.4 | 54.9 | 57.1 | 71.6 | 85.8 | 103 | 114 | 143 | 171 | 200 | 200 | 200 | 200 | 200 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 |
| | Allowable Torque | N.m | 0.9 | 1.08 | 1.50 | 1.80 | 2.23 | 2.70 | 2.70 | 3.38 | 4.05 | 4.88 | 4.88 | 6.10 | 7.33 | 8.79 | 9.76 | 12.2 | 14.6 | 18.3 | 19.6 | 19.6 | 19.6 | 19.6 |
| | | kgf.cm | 9.18 | 11.0 | 15.3 | 18.4 | 23.0 | 27.6 | 27.6 | 34.5 | 41.3 | 49.5 | 49.5 | 62.2 | 74.7 | 90.0 | 99.8 | 124 | 149 | 187 | 200 | 200 | 200 | 200 |

## Capacitor

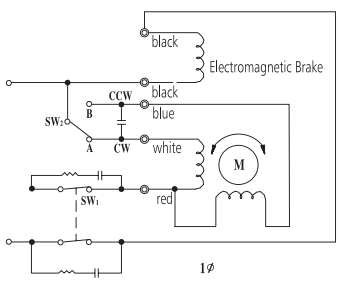


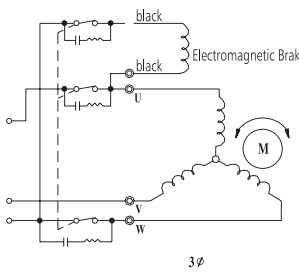

| capacity μF | Voltage | L± 1 | W± 1 | H± 1 | Type |
|---|---|---|---|---|---|
| Allowable Deviation± 5% | V | mm | mm | mm | |
| 4.5 | 450 | 47 | 22 | 34 | Down-lead |
| 18.0 | 250 | 68 | 32 | 56 | |

**Model of Gearbox: 5GU □ K**

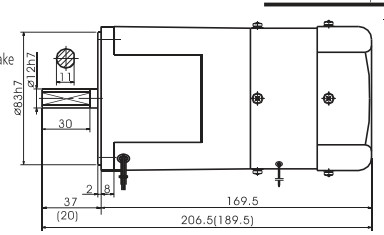
| Frequency | Reduction Ratio | | 180 | 200 |
|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 8 | 7.5 |
| | Allowable Torque | N.m | 19.6 | 19.6 |
| | | kgf.cm | 200 | 200 |
| 60Hz | Output Shaft Speed | r/min | 10 | 9 |
| | Allowable Torque | N.m | 19.6 | 19.6 |
| | | kgf.cm | 200 | 200 |

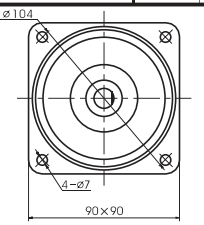
## Wiring Diagram




## Motor Overall Dimension




●The value in the ( ) is the value of small gear shaft motor.

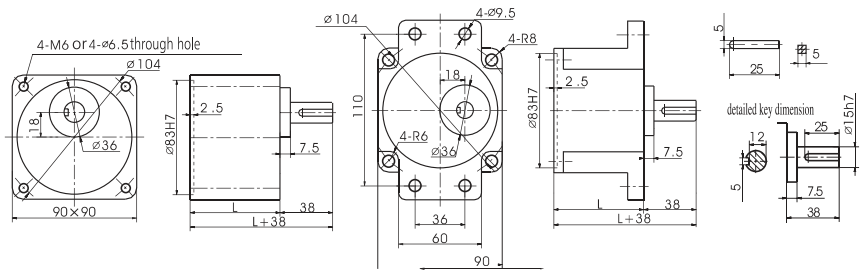


## List of Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | Rated | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Speed | Current | Torque | | | | |
| Motor | Motor with gear shaft | W | V | Hz | P | | r/min | A | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 5RK90A-AMF | 5RK90GU-AMF | 90 | 1ph110 | 50 | 4 | 30Min | 1350 | 1.55 | 0.64 | 6.40 | 0.48 | 4.80 | 25.0/250 |
| 5RK90A-CMF | 5RK90GU-CMF | 90 | 1ph220 | 50 | 4 | 30Min | 1350 | 0.70 | 0.64 | 6.40 | 0.48 | 4.80 | 6.0/450 |
| 5RK90A-SMF | 5RK90GU-SMF | 90 | 3ph220 | 50 | 4 | 30Min | 1350 | 0.66 | 0.66 | 6.60 | 2.30 | 23.00 | / |
| 5RK90A-S3MF | 5RK90GU-S3MF | 90 | 3ph380 | 50 | 4 | 30Min | 1350 | 0.38 | 0.66 | 6.60 | 2.30 | 23.00 | / |

●The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage. ●Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Overall Dimension of Gearbox



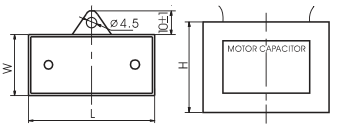

| | Reduction Ratio | L(mm) | Weight (kg) |
|---|---|---|---|
| Gearbox | 5GU3K-GU9K | 65 | 1.21 |
| | 5GU10K-GU18K | | 1.30 |
| | 5GU20K-GU75K | | 1.40 |
| | 5GU90K-GU200K | | 1.45 |
| Motor | | | 3.60 |

## Allowable Torque on Gearbox

**Model of Gearbox: 5GU □K**

| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 |
| | Allowable Torque | N.m | 1.55 | 1.86 | 2.58 | 3.10 | 3.87 | 4.64 | 4.65 | 5.81 | 6.98 | 8.37 | 8.40 | 10.5 | 12.6 | 15.1 | 16.8 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 |
| | | kgf.cm | 15.8 | 19.0 | 29.2 | 31.6 | 39.6 | 47.2 | 47.4 | 59.3 | 71.2 | 85.4 | 85.7 | 107 | 129 | 154 | 171 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 |
| | Allowable Torque | N.m | 1.35 | 1.62 | 2.25 | 2.70 | 3.37 | 4.04 | 4.05 | 5.06 | 6.07 | 7.29 | 7.32 | 9.15 | 11.0 | 13.2 | 14.6 | 18.3 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 |
| | | kgf.cm | 13.8 | 16.5 | 23.0 | 27.6 | 34.4 | 41.2 | 41.3 | 51.6 | 61.9 | 74.4 | 74.7 | 93.4 | 112 | 135 | 149 | 187 | 200 | 200 | 200 | 200 | 200 | 200 |

## Capacitor

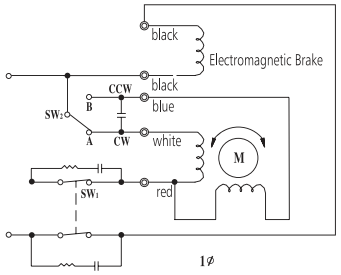



| capacity μF | Voltage | L± 1 | W± 1 | H± 1 | Type |
|---|---|---|---|---|---|
| Allowable Deviation± 5% | V | mm | mm | mm | |
| 6.0 | 450 | 47 | 26 | 38 | Down-lead |
| 25.0 | 250 | 68 | 32 | 56 | |

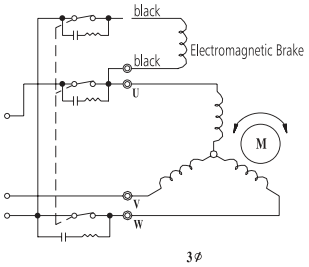
**Model of Gearbox: 5GU □K**

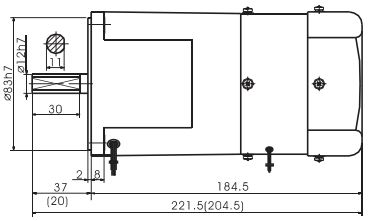
| Frequency | Reduction Ratio | | 180 | 200 |
|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 8 | 7.5 |
| | Allowable Torque | N.m | 19.6 | 19.6 |
| | | kgf.cm | 200 | 200 |
| 60Hz | Output Shaft Speed | r/min | 10 | 9 |
| | Allowable Torque | N.m | 19.6 | 19.6 |
| | | kgf.cm | 200 | 200 |

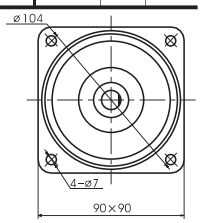
## Wiring Diagram




## Motor Overall Dimension




●The value in the ( ) is the value of small gear shaft motor.

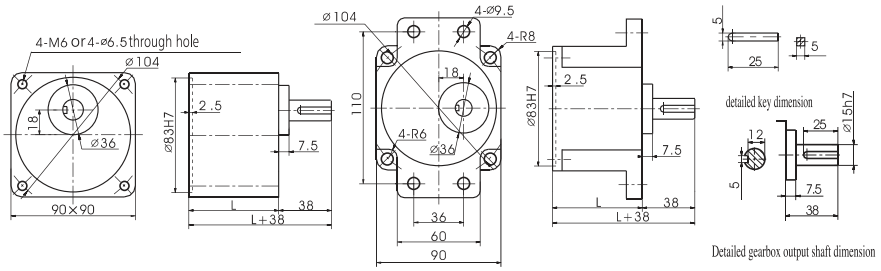


## List of Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | Rated | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Speed | Current | Torque | | | | |
| Motor | Motor with gear shaft | W | V | Hz | P | | r/min | A | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 5RK120A-AMF | 5RK120GU-AMF | 120 | 1ph110 | 50 | 4 | 30Min | 1300 | 2.10 | 0.90 | 9.00 | 0.78 | 7.80 | 30.0/250 |
| 5RK120A-CMF | 5RK120GU-CMF | 120 | 1ph220 | 50 | 4 | 30Min | 1300 | 0.92 | 0.87 | 8.65 | 0.75 | 7.50 | 7.0/450 |
| 5RK120A-SMF | 5RK120GU-SMF | 120 | 3ph220 | 50 | 4 | 30Min | 1300 | 0.86 | 0.87 | 8.65 | 3.00 | 30.00 | / |
| 5RK120A-S$_3$MF | 5RK120GU-S$_3$MF | 120 | 3ph380 | 50 | 4 | 30Min | 1300 | 0.51 | 0.87 | 8.65 | 3.00 | 30.00 | / |

●The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage. ●Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Overall Dimension of Gearbox



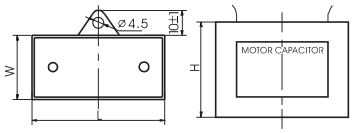

| | Reduction Ratio | L(mm) | Weight (kg) |
|---|---|---|---|
| Gearbox | 5GU3K-GU9K | 65 | 1.21 |
| | 5GU10K-GU18K | | 1.30 |
| | 5GU20K-GU75K | | 1.40 |
| | 5GU90K-GU200K | | 1.45 |
| Motor | | | 3.80 |

## Allowable Torque on Gearbox

**Model of Gearbox: 5GU □K**

| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 |
| | Allowable Torque | N.m | 2.14 | 2.57 | 3.57 | 4.29 | 5.38 | 6.43 | 6.43 | 8.05 | 9.66 | 11.6 | 11.6 | 14.6 | 17.5 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 |
| | | kgf.cm | 21.8 | 26.2 | 36.4 | 43.8 | 54.7 | 65.6 | 65.6 | 82.1 | 98.6 | 118 | 118 | 149 | 196 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 |
| | Allowable Torque | N.m | 1.80 | 2.16 | 3.00 | 3.60 | 4.49 | 5.39 | 5.39 | 6.75 | 8.10 | 9.72 | 9.72 | 12.2 | 14.6 | 17.6 | 19.5 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 |
| | | kgf.cm | 18.4 | 22.0 | 30.6 | 36.7 | 45.8 | 55.0 | 55.0 | 68.9 | 82.7 | 99.2 | 99.2 | 124 | 149 | 180 | 199 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |

## Capacitor

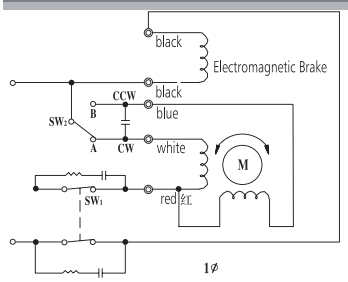



| capacity μF | Voltage | L± 1 | W± 1 | H± 1 | Type |
|---|---|---|---|---|---|
| Allowable Deviation± 5% | V | mm | mm | mm | |
| 7.0 | 450 | 47 | 26 | 38 | Down-lead |
| 30.0 | 250 | 68 | 32 | 56 | |

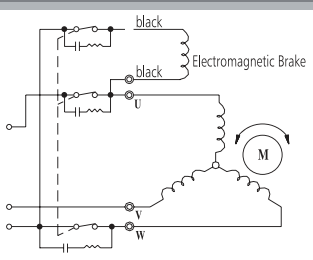
**Model of Gearbox: 5GU □K**

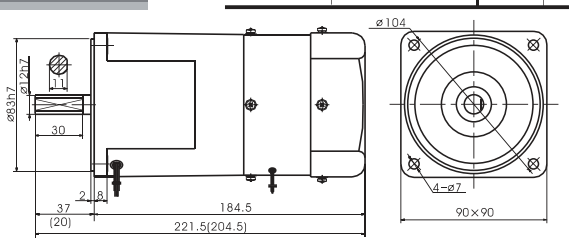
| Frequency | Reduction Ratio | | 180 | 200 |
|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 8 | 7.5 |
| | Allowable Torque | N.m | 19.6 | 19.6 |
| | | kgf.cm | 200 | 200 |
| 60Hz | Output Shaft Speed | r/min | 10 | 9 |
| | Allowable Torque | N.m | 19.6 | 19.6 |
| | | kgf.cm | 200 | 200 |

## Wiring Diagram




## Motor Overall Dimension




●The value in the ( ) is the value of small gear shaft motor.

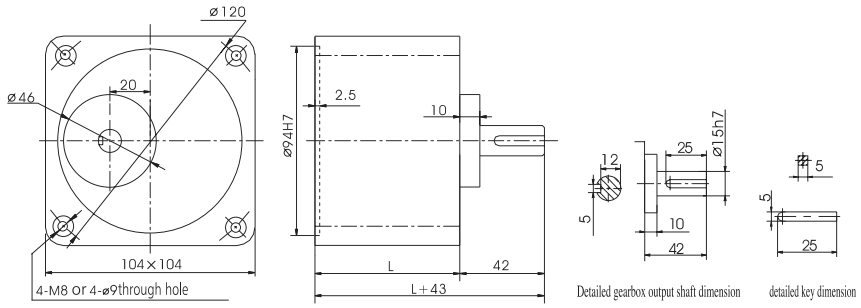


## List of Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | Rated | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Speed | Current | Torque | | | | |
| Motor | Motor with gear shaft | W | V | Hz | P | | r/min | A | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 6RK120A-AM | 6RK120GU-AM | 120 | 1ph110 | 50 | 4 | 30Min | 1350 | 1.90 | 0.85 | 8.50 | 0.59 | 5.85 | 25.0/250 |
| 6RK120A-CM | 6RK120GU-CM | 120 | 1ph220 | 50 | 4 | 30Min | 1350 | 0.92 | 0.85 | 8.50 | 0.75 | 7.50 | 8.0/450 |
| 6RK120A-SM | 6RK120GU-SM | 120 | 3ph220 | 50 | 4 | 30Min | 1350 | 0.89 | 0.85 | 8.50 | 3.50 | 35.00 | / |
| 6RK120A-S3M | 6RK120GU-S3M | 120 | 3ph380 | 50 | 4 | 30Min | 1350 | 0.51 | 0.85 | 8.50 | 3.50 | 35.00 | / |

●The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage. ●Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Overall Dimension of Gearbox



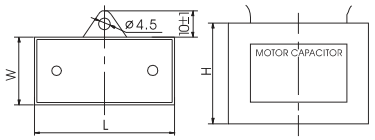

| | Reduction Ratio | L(mm) | Weight (kg) |
|---|---|---|---|
| Gearbox | 6GU3K-GU9K | 72 | 1.87 |
| | 6GU10K-GU18K | | 2.10 |
| | 6GU20K-GU200K | | 2.75 |
| Motor | | | 5.00 |

## Allowable Torque on Gearbox

**Model of Gearbox: 6GU □K**

| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 |
| | Allowable Torque | N.m | 2.06 | 2.48 | 3.44 | 4.13 | 5.16 | 6.19 | 6.19 | 7.75 | 9.30 | 11.2 | 11.2 | 14.0 | 16.8 | 20.0 | 22.4 | 28.0 | 33.6 | 39.2 | 39.2 | 39.2 | 39.2 | 39.2 |
| | | kgf.cm | 21.0 | 25.3 | 35.1 | 42.1 | 52.6 | 63.2 | 63.2 | 79.1 | 94.9 | 114 | 114 | 143 | 171 | 206 | 228 | 286 | 343 | 400 | 400 | 400 | 400 | 400 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 |
| | Allowable Torque | N.m | 1.74 | 2.09 | 2.90 | 3.48 | 4.35 | 5.22 | 5.22 | 6.54 | 7.85 | 9.42 | 9.42 | 11.8 | 14.2 | 17.0 | 18.9 | 23.6 | 28.4 | 35.5 | 39.2 | 39.2 | 39.2 | 39.2 |
| | | kgf.cm | 17.8 | 21.3 | 29.6 | 35.5 | 44.4 | 53.3 | 53.3 | 69.7 | 80.0 | 96.1 | 96.1 | 121 | 146 | 174 | 193 | 241 | 289 | 362 | 400 | 400 | 400 | 400 |

## Capacitor

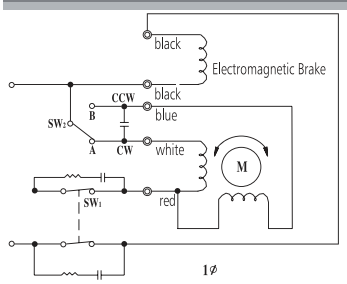


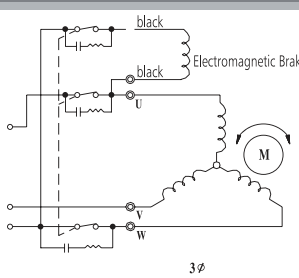

| capacity μF | Voltage | L± 1 | W± 1 | H± 1 | Type |
|---|---|---|---|---|---|
| Allowable Deviation± 5% | V | mm | mm | mm | |
| 8.0 | 450 | 47 | 26 | 38 | Down-lead |
| 25.0 | 250 | 68 | 32 | 56 | |

**Model of Gearbox: 6GU □K**

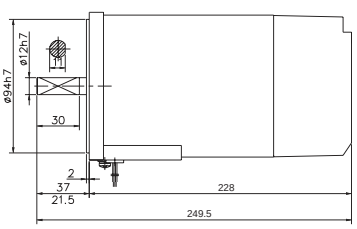
| Frequency | Reduction Ratio | | 180 | 200 |
|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 8 | 7.5 |
| | Allowable Torque | N.m | 39.2 | 39.2 |
| | | kgf.cm | 400 | 400 |
| 60Hz | Output Shaft Speed | r/min | 10 | 9 |
| | Allowable Torque | N.m | 39.2 | 39.2 |
| | | kgf.cm | 400 | 400 |

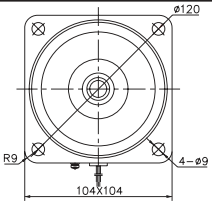
## Wiring Diagram




## Motor Overall Dimension




●The value in the ( ) is the value of small gear shaft motor.

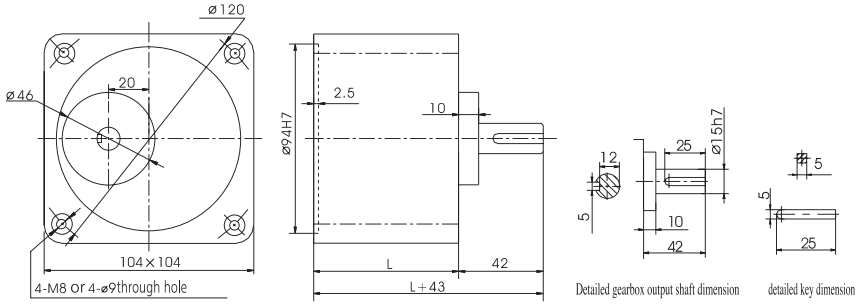


## List of Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | Rated | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Speed | Current | Torque | | | | |
| Motor | Motor with gear shaft | W | V | Hz | P | | r/min | A | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 6RK140A-AM | 6RK140GU-AM | 140 | 1ph110 | 50 | 4 | 30Min | 1350 | 2.00 | 0.99 | 9.95 | 0.90 | 9.00 | 30.0/250 |
| 6RK140A-CM | 6RK140GU-CM | 140 | 1ph220 | 50 | 4 | 30Min | 1350 | 1.13 | 0.099 | 9.95 | 0.90 | 9.00 | 10.0/450 |
| 6RK140A-SM | 6RK140GU-SM | 140 | 3ph220 | 50 | 4 | 30Min | 1350 | 0.95 | 0.99 | 9.95 | 3.50 | 35.00 | / |
| 6RK140A-S3M | 6RK140GU-S3M | 140 | 3ph380 | 50 | 4 | 30Min | 1350 | 0.55 | 0.99 | 9.95 | 3.50 | 35.00 | / |

●The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage. ●Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Overall Dimension of Gearbox



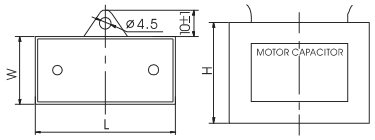

| | Reduction Ratio | L(mm) | Weight (kg) |
|---|---|---|---|
| Gearbox | 6GU3K-GU9K | 72 | 1.87 |
| | 6GU10K-GU18K | | 2.10 |
| | 6GU20K-GU200K | | 2.75 |
| Motor | | | 5.20 |

## Allowable Torque on Gearbox

**Model of Gearbox: 6GU □ K**

| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 |
| | Allowable Torque | N.m | 2.36 | 2.83 | 3.93 | 4.71 | 5.89 | 7.07 | 7.07 | 8.85 | 10.6 | 12.7 | 12.7 | 16.0 | 19.2 | 23.0 | 25.6 | 32.0 | 38.4 | 39.2 | 39.2 | 39.2 | 39.2 | 39.2 |
| | | kgf.cm | 24.1 | 28.8 | 40.1 | 48.1 | 60.1 | 72.1 | 72.1 | 90.3 | 108 | 130 | 130 | 163 | 196 | 235 | 261 | 327 | 292 | 400 | 400 | 400 | 400 | 400 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 |
| | Allowable Torque | N.m | 2.03 | 2.44 | 3.39 | 4.06 | 5.08 | 6.09 | 6.09 | 7.60 | 9.15 | 11.0 | 11.0 | 13.8 | 16.6 | 19.9 | 22.1 | 27.6 | 33.1 | 39.2 | 39.2 | 39.2 | 39.2 | 39.2 |
| | | kgf.cm | 20.7 | 24.9 | 34.6 | 41.2 | 51.8 | 62.1 | 62.1 | 77.6 | 93.4 | 112 | 112 | 141 | 169 | 203 | 226 | 282 | 338 | 400 | 400 | 400 | 400 | 400 |

## Capacitor

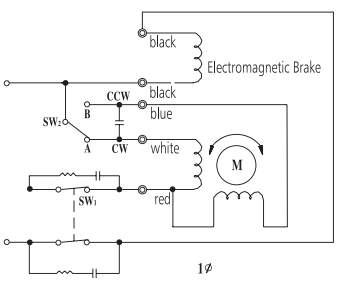


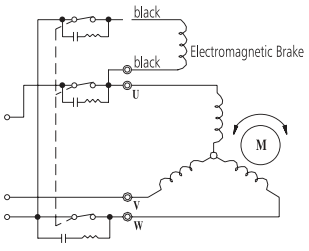

| capacity μF | Voltage | L± 1 | W± 1 | H± 1 | Type |
|---|---|---|---|---|---|
| Allowable Deviation± 5% | V | mm | mm | mm | |
| 10.0 | 450 | 47 | 26 | 38 | Down-lead |
| 30.0 | 250 | 68 | 32 | 56 | |

**Model of Gearbox: 6GU □ K**

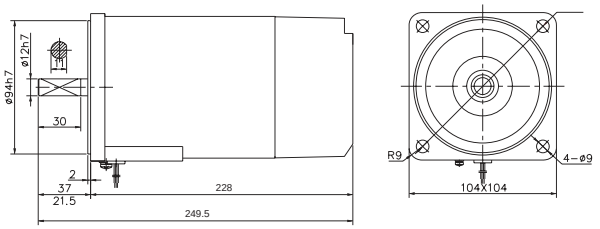
| Frequency | Reduction Ratio | | 180 | 200 |
|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 8 | 7.5 |
| | Allowable Torque | N.m | 39.2 | 39.2 |
| | | kgf.cm | 400 | 400 |
| 60Hz | Output Shaft Speed | r/min | 10 | 9 |
| | Allowable Torque | N.m | 39.2 | 39.2 |
| | | kgf.cm | 400 | 400 |

## Wiring Diagram




## Motor Overall Dimension




●The value in the ( ) is the value of small gear shaft motor.

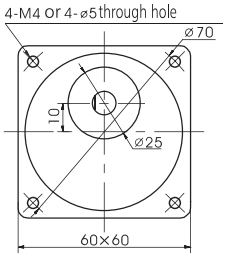


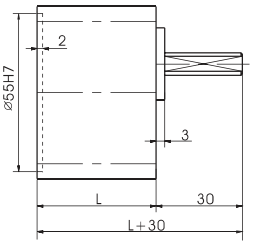
## List of Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | RPM | Allowable Torque | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 1200r/min | | 90r/min | | | | |
| Motor | Motor with gear shaft | W | V | Hz | P | | r/min | N.m | kgf.cm | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 2IK6RA-A | 2IK6RGN-A | 6 | 1ph110 | 50 | 4 | CONT | 90～1350 | 0.05 | 0.50 | 0.03 | 0.29 | 0.03 | 0.33 | 3.0/250 |
| 2IK6RA-C | 2IK6RGN-C | 6 | 1ph220 | 50 | 4 | CONT | 90～1350 | 0.05 | 0.50 | 0.03 | 0.29 | 0.03 | 0.33 | 0.8/450 |
| 2RK6RA-A | 2RK6RGN-A | 6 | 1ph110 | 50 | 4 | 30Min | 90～1350 | 0.06 | 0.55 | 0.03 | 0.32 | 0.04 | 0.38 | 3.5/250 |
| 2RK6RA-C | 2RK6RGN-C | 6 | 1ph220 | 50 | 4 | 30Min | 90～1350 | 0.06 | 0.55 | 0.03 | 0.32 | 0.04 | 0.38 | 1.0/450 |

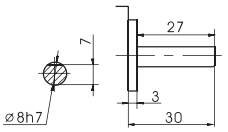
●The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage. ●Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Overall Dimension of Gearbox




## Motor Overall Dimension




Detailed gearbox output shaft dimension

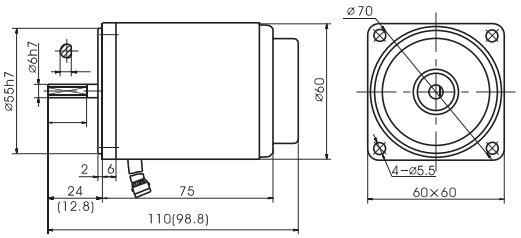
| | Reduction Ratio | L(mm) | Weight (kg) |
|---|---|---|---|
| Gearbox | 2GN3K-GN18K | 32 | 0.24 |
| | 2GN20K-GN50K | 42 | 0.30 |
| | 2GN60K-GN200K | | 0.33 |
| Motor | | | 0.75 |

## Allowable Torque on Gearbox

**Model of Gearbox: 2GN □ K**

| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 |
| | Allowable Torque | N.m | 0.13 | 0.15 | 0.21 | 0.26 | 0.31 | 0.38 | 0.42 | 0.53 | 0.63 | 0.76 | 0.76 | 0.95 | 1.14 | 1.36 | 1.52 | 1.72 | 2.06 | 2.57 | 2.94 | 2.94 | 2.94 | 2.94 |
| | | kgf.cm | 1.3 | 1.5 | 2.1 | 2.6 | 3.2 | 3.9 | 4.3 | 5.4 | 6.4 | 7.7 | 7.7 | 9.7 | 11.6 | 13.9 | 15.5 | 17.5 | 21.0 | 26.2 | 30.0 | 30.0 | 30.0 | 30.0 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 |
| | Allowable Torque | N.m | 0.10 | 0.13 | 0.17 | 0.21 | 0.26 | 0.30 | 0.34 | 0.43 | 0.51 | 0.62 | 0.62 | 0.76 | 0.92 | 1.11 | 1.24 | 1.39 | 1.67 | 2.09 | 2.50 | 2.78 | 2.94 | 2.94 |
| | | kgf.cm | 1.0 | 1.3 | 1.7 | 2.1 | 2.6 | 3.1 | 3.5 | 4.4 | 5.2 | 6.3 | 6.3 | 7.8 | 9.4 | 11.3 | 12.6 | 14.2 | 17.0 | 21.3 | 25.5 | 28.4 | 30.0 | 30.0 |

### Motor Overall Dimension




■The value in the ( ) is the value of small gear shaft motor.

**Model of Gearbox: 2GN □ K**

| Frequency | Reduction Ratio | | 180 | 200 |
|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 8 | 7.5 |
| | Allowable Torque | N.m | 2.94 | 2.94 |
| | | kgf.cm | 30.0 | 30.0 |
| 60Hz | Output Shaft Speed | r/min | 10 | 9 |
| | Allowable Torque | N.m | 2.94 | 2.94 |
| | | kgf.cm | 30.0 | 30.0 |

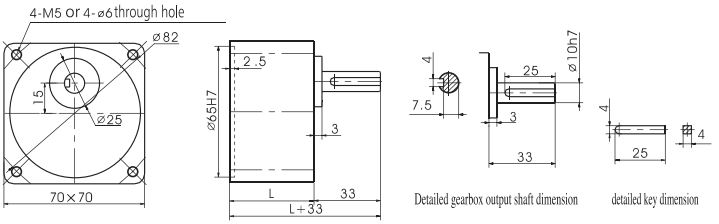


## List of Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | RPM | Allowable Torque | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 1200r/min | | 90r/min | | | | |
| Motor | Motor with gear shaft | W | V | Hz | P | | r/min | N.m | kgf.cm | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 3IK15RA-A | 3IK15RGN-A | 15 | 1ph110 | 50 | 4 | CONT | 90～1350 | 0.12 | 1.20 | 0.04 | 0.35 | 0.06 | 0.55 | 5.0/250 |
| 3IK15RA-C | 3IK15RGN-C | 15 | 1ph220 | 50 | 4 | CONT | 90～1350 | 0.12 | 1.20 | 0.04 | 0.35 | 0.06 | 0.55 | 1.2/450 |
| 3RK15RA-A | 3RK15RGN-A | 15 | 1ph110 | 50 | 4 | 30Min | 90～1350 | 0.13 | 1.30 | 0.04 | 0.40 | 0.07 | 0.65 | 6.0/250 |
| 3RK15RA-C | 3RK15RGN-C | 15 | 1ph220 | 50 | 4 | 30Min | 90～1350 | 0.13 | 1.30 | 0.04 | 0.40 | 0.07 | 0.65 | 1.5/450 |

●The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage. ●Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Overall Dimension of Gearbox



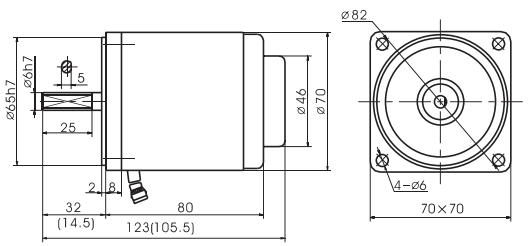

| | Reduction Ratio | L(mm) | Weight (kg) |
|---|---|---|---|
| Gearbox | 3GN3K-GN18K | 32 | 0.38 |
| | 3GN20K-GN50K | 42 | 0.47 |
| | 3GN60K-GN200K | | 0.52 |
| Motor | | | 1.20 |

## Allowable Torque on Gearbox

**Model of Gearbox: 3GN □ K**

| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 |
| | Allowable Torque | N.m | 0.31 | 0.38 | 0.53 | 0.64 | 0.79 | 0.95 | 1.06 | 1.32 | 1.59 | 1.90 | 1.90 | 2.37 | 2.85 | 3.42 | 3.81 | 4.28 | 4.90 | 4.90 | 4.90 | 4.90 | 4.90 | 4.90 |
| | | kgf.cm | 3.2 | 3.9 | 5.4 | 6.5 | 8.1 | 9.7 | 10.8 | 13.5 | 16.2 | 19.4 | 19.4 | 24.2 | 29.1 | 34.9 | 38.8 | 43.6 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 |
| | Allowable Torque | N.m | 0.29 | 0.35 | 0.50 | 0.60 | 0.75 | 0.89 | 0.99 | 1.25 | 1.49 | 1.79 | 1.79 | 2.24 | 2.68 | 3.22 | 3.58 | 4.02 | 4.90 | 4.90 | 4.90 | 4.90 | 4.90 | 4.90 |
| | | kgf.cm | 3.0 | 3.6 | 5.1 | 6.1 | 7.6 | 9.1 | 10.1 | 12.7 | 15.2 | 18.2 | 18.2 | 22.8 | 27.3 | 32.8 | 36.5 | 41.0 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 | 50.0 |

### Motor Overall Dimension




● The value in the ( ) is the value of small gear shaft motor.

**Model of Gearbox: 3GN □ K**

| Frequency | Reduction Ratio | | 180 | 200 |
|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 8 | 7.5 |
| | Allowable Torque | N.m | 4.90 | 4.90 |
| | | kgf.cm | 50.0 | 50.0 |
| 60Hz | Output Shaft Speed | r/min | 10 | 9 |
| | Allowable Torque | N.m | 4.90 | 4.90 |
| | | kgf.cm | 50.0 | 50.0 |

# AC Speed Control Motor 25W

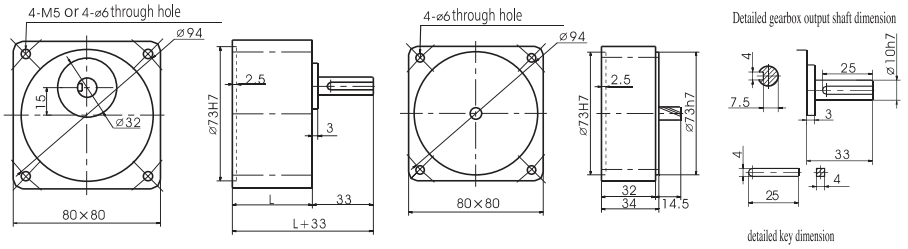


## List of Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | RPM | Allowable Torque | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 1200r/min | | 90r/min | | | | |
| Motor | Motor with gear shaft | W | V | Hz | P | | r/min | N.m | kgf.cm | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 4IK25RA-A | 4IK25RGN-A | 25 | 1ph110 | 50 | 4 | CONT | 90～1350 | 0.19 | 1.90 | 0.05 | 0.45 | 0.13 | 0.45 | 7.0/250 |
| 4IK25RA-C | 4IK25RGN-C | 25 | 1ph220 | 50 | 4 | CONT | 90～1350 | 0.19 | 1.90 | 0.05 | 0.45 | 0.13 | 0.45 | 1.8/450 |
| 4RK25RA-A | 4RK25RGN-A | 25 | 1ph110 | 50 | 4 | 30Min | 90～1350 | 0.20 | 2.00 | 0.05 | 0.50 | 0.15 | 0.50 | 8.0/250 |
| 4RK25RA-C | 4RK25RGN-C | 25 | 1ph220 | 50 | 4 | 30Min | 90～1350 | 0.20 | 2.00 | 0.05 | 0.50 | 0.18 | 0.50 | 2.2/450 |

●The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage. ●Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Overall Dimension of Gearbox



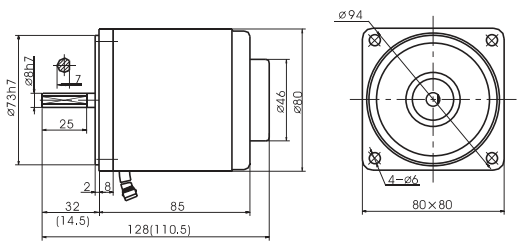

| | Reduction Ratio | L(mm) | Weight(kg) |
|---|---|---|---|
| Gearbox | 4GN3K-GN18K | 32 | 0.43 |
| | 4GN20K-GN50K | 43.5 | 0.57 |
| | 4GN60K-GN200K | | 0.61 |
| Intermediate Gearbox | 4GN10X | 32 | 0.43 |
| Motor | | | 1.65 |

## Allowable Torque on Gearbox

**Model of Gearbox: 4GN □K**

| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 |
| | Allowable Torque | N.m | 0.52 | 0.63 | 0.87 | 1.05 | 1.31 | 1.57 | 1.74 | 2.19 | 2.62 | 3.15 | 3.15 | 3.94 | 4.72 | 5.66 | 6.29 | 7.12 | 7.84 | 7.84 | 7.84 | 7.84 | 7.84 | 7.84 |
| | | kgf.cm | 5.3 | 6.4 | 8.9 | 10.7 | 13.4 | 16.0 | 17.8 | 22.3 | 26.7 | 32.1 | 32.1 | 40.2 | 48.2 | 57.8 | 64.2 | 72.6 | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 |
| | Allowable Torque | N.m | 0.43 | 0.51 | 0.72 | 0.85 | 1.07 | 1.28 | 1.43 | 1.78 | 2.15 | 2.57 | 2.58 | 3.22 | 3.86 | 4.64 | 5.16 | 5.82 | 6.99 | 7.84 | 7.84 | 7.84 | 7.84 | 7.84 |
| | | kgf.cm | 4.4 | 5.2 | 7.3 | 8.7 | 10.9 | 13.1 | 14.6 | 18.2 | 21.9 | 26.2 | 26.3 | 32.9 | 39.4 | 47.3 | 52.6 | 59.4 | 71.3 | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 |

### Motor Overall Dimension




●The value in the ( ) is the value of small gear shaft motor.

**Model of Gearbox: 4GN □K**

| Frequency | Reduction Ratio | | 180 | 200 |
|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 8 | 7.5 |
| | Allowable Torque | N.m | 7.84 | 7.84 |
| | | kgf.cm | 80.0 | 80.0 |
| 60Hz | Output Shaft Speed | r/min | 10 | 9 |
| | Allowable Torque | N.m | 7.84 | 7.84 |
| | | kgf.cm | 80.0 | 80.0 |

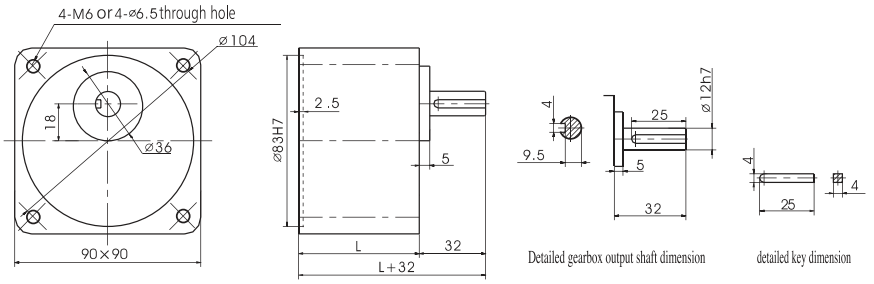


## List of Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | RPM | Allowable Torque | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 1200r/min | | 90r/min | | | | |
| Motor | Motor with gear shaft | W | V | Hz | P | | r/min | N.m | kgf.cm | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 5IK40RA-A | 5IK40RGN-A | 40 | 1ph110 | 50 | 4 | CONT | 90～1350 | 0.30 | 3.00 | 0.06 | 0.60 | 0.19 | 1.90 | 10.0/250 |
| 5IK40RA-C | 5IK40RGN-C | 40 | 1ph220 | 50 | 4 | CONT | 90～1350 | 0.30 | 3.00 | 0.06 | 0.60 | 0.19 | 1.90 | 2.5/450 |
| 5RK40RA-A | 5RK40RGN-A | 40 | 1ph110 | 50 | 4 | 30Min | 90～1350 | 0.32 | 3.20 | 0.07 | 0.65 | 0.21 | 2.10 | 12.0/250 |
| 5RK40RA-C | 5RK40RGN-C | 40 | 1ph220 | 50 | 4 | 30Min | 90～1350 | 0.32 | 3.20 | 0.07 | 0.65 | 0.21 | 2.10 | 3.0/450 |

●The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage. ●Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Overall Dimension of Gearbox



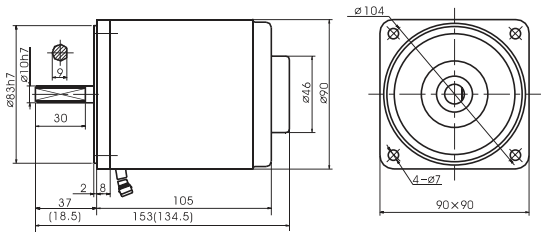

| | Reduction Ratio | L(mm) | Weight (kg) |
|---|---|---|---|
| Gearbox | 5GN3K-GN18K | 42 | 0.73 |
| | 5GN20K-GN36K | 60 | 1.03 |
| | 5GN40K-GN200K | | 1.13 |
| Motor | | | 2.50 |

## Allowable Torque on Gearbox

**Model of Gearbox: 5GN □ K**

| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 |
| | Allowable Torque | N.m | 0.68 | 0.82 | 1.14 | 1.37 | 1.72 | 2.06 | 2.29 | 2.86 | 3.43 | 4.13 | 4.59 | 5.16 | 6.20 | 7.44 | 8.26 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 |
| | | kgf.cm | 6.94 | 8.37 | 11.6 | 14.0 | 17.6 | 21.0 | 23.4 | 29.2 | 35.0 | 42.1 | 46.8 | 52.6 | 63.3 | 75.9 | 84.3 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 |
| | Allowable Torque | N.m | 0.58 | 0.70 | 0.97 | 1.16 | 1.45 | 1.74 | 1.93 | 2.41 | 2.90 | 3.48 | 3.87 | 4.36 | 5.23 | 6.28 | 6.97 | 8.72 | 9.46 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 |
| | | kgf.cm | 5.92 | 7.14 | 9.90 | 11.8 | 10.8 | 17.7 | 19.7 | 24.6 | 29.6 | 35.5 | 39.5 | 44.5 | 53.4 | 64.1 | 71.1 | 89.0 | 96.5 | 100 | 100 | 100 | 100 | 100 |

## Motor Overall Dimension




●The value in the ( ) is the value of small gear shaft motor.

**Model of Gearbox: 5GN □ K**

| Frequency | Reduction Ratio | | 180 | 200 |
|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 8 | 7.5 |
| | Allowable Torque | N.m | 9.80 | 9.80 |
| | | kgf.cm | 100 | 100 |
| 60Hz | Output Shaft Speed | r/min | 10 | 9 |
| | Allowable Torque | N.m | 9.80 | 9.80 |
| | | kgf.cm | 100 | 100 |

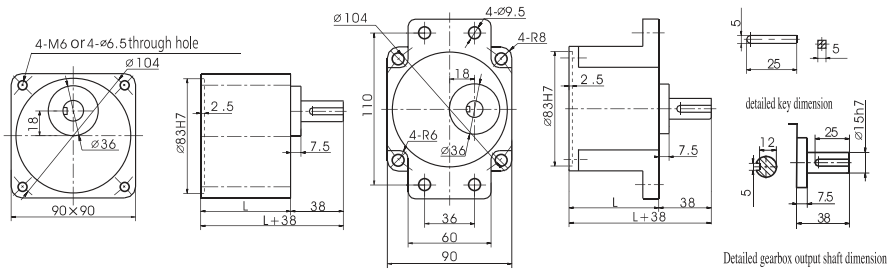


## List of Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | RPM | Allowable Torque | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 1200r/min | | 90r/min | | | | |
| Motor | Motor with gear shaft | W | V | Hz | P | | r/min | N.m | kgf.cm | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 5IK60RA-AF | 5IK60RGU-AF | 60 | 1ph110 | 50 | 4 | CONT | 90～1350 | 0.50 | 5.00 | 0.14 | 1.40 | 0.31 | 3.10 | 15.0/250 |
| 5IK60RA-CF | 5IK60RGU-CF | 60 | 1ph220 | 50 | 4 | CONT | 90～1350 | 0.50 | 5.00 | 0.14 | 1.40 | 0.33 | 3.30 | 4.0/450 |

●The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage. ●Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Overall Dimension of Gearbox



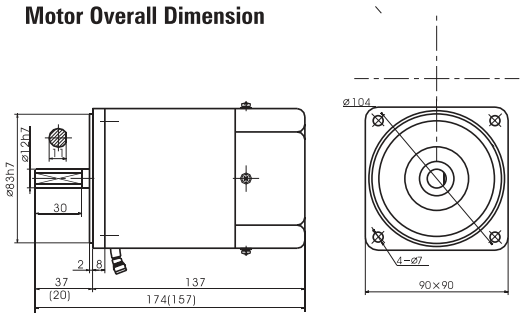

| | Reduction Ratio | L(mm) | Weight (kg) |
|---|---|---|---|
| Gearbox | 5GU3K-GU9K | 65 | 1.21 |
| | 5GU10K-GU18K | | 1.30 |
| | 5GU20K-GU75K | | 1.40 |
| | 5GU90K-GU200K | | 1.45 |
| Motor | | | 2.70 |

## Allowable Torque on Gearbox

**Model of Gearbox: 5GU □K**

| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 |
| | Allowable Torque | N.m | 1.03 | 1.24 | 1.72 | 2.6 | 2.58 | 3.10 | 3.10 | 3.88 | 4.65 | 5.38 | 5.60 | 7.01 | 8.41 | 10.1 | 11.2 | 14.0 | 16.8 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 |
| | | kgf.cm | 10.5 | 12.7 | 17.6 | 21.0 | 26.3 | 31.6 | 31.6 | 39.6 | 47.4 | 54.9 | 57.1 | 71.6 | 85.8 | 103 | 114 | 143 | 171 | 200 | 200 | 200 | 200 | 200 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 |
| | Allowable Torque | N.m | 0.9 | 1.08 | 1.50 | 1.80 | 2.23 | 2.70 | 2.70 | 3.38 | 4.05 | 4.88 | 4.88 | 6.10 | 7.33 | 8.79 | 9.76 | 12.2 | 14.6 | 18.3 | 19.6 | 19.6 | 19.6 | 19.6 |
| | | kgf.cm | 9.18 | 11.0 | 15.3 | 18.4 | 23.0 | 27.6 | 27.6 | 34.5 | 41.3 | 49.5 | 49.5 | 62.2 | 74.7 | 90.0 | 99.8 | 124 | 149 | 187 | 200 | 200 | 200 | 200 |

## Motor Overall Dimension




**Model of Gearbox: 5GU □K**

| Frequency | Reduction Ratio | | 180 | 200 |
|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 8 | 7.5 |
| | Allowable Torque | N.m | 19.6 | 19.6 |
| | | kgf.cm | 200 | 200 |
| 60Hz | Output Shaft Speed | r/min | 10 | 9 |
| | Allowable Torque | N.m | 19.6 | 19.6 |
| | | kgf.cm | 200 | 200 |

●The value in the ( ) is the value of small gear shaft motor.

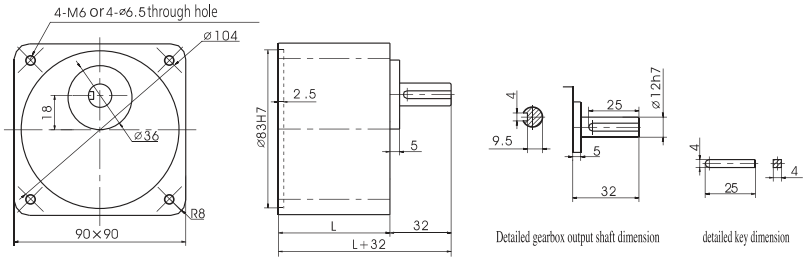


## List of Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | RPM | Allowable Torque | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 1200r/min | | 90r/min | | | | |
| Motor | Motor with gear shaft | W | V | Hz | P | | r/min | N.m | kgf.cm | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 5IK60RA-AF | 5IK60RGN-AF | 60 | 1ph110 | 50 | 4 | CONT | 90～1350 | 0.50 | 5.00 | 0.14 | 1.40 | 0.31 | 3.10 | 15.0/250 |
| 5IK60RA-CF | 5IK60RGN-CF | 60 | 1ph220 | 50 | 4 | CONT | 90～1350 | 0.50 | 5.00 | 0.14 | 1.40 | 0.33 | 3.30 | 4.0/450 |

●The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage. ●Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Overall Dimension of Gearbox



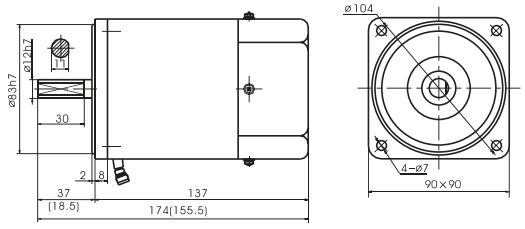

| | Reduction Ratio | L(mm) | Weight (kg) |
|---|---|---|---|
| Gearbox | 5GN3K-GN18K | 42 | 0.73 |
| | 5GN20K-GN36K | 60 | 1.03 |
| | 5GN40K-GN200K | | 1.13 |
| Motor | | | 2.70 |

## Allowable Torque on Gearbox

**Model of Gearbox: 5GN □ K**

| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 |
| | Allowable Torque | N.m | 1.03 | 1.24 | 1.72 | 2.6 | 2.58 | 3.10 | 3.10 | 3.88 | 4.65 | 5.38 | 5.60 | 7.01 | 8.41 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 |
| | | kgf.cm | 10.5 | 12.7 | 17.6 | 21.0 | 26.3 | 31.6 | 31.6 | 39.6 | 47.4 | 54.9 | 57.1 | 71.6 | 85.8 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 |
| | Allowable Torque | N.m | 0.9 | 1.08 | 1.50 | 1.80 | 2.23 | 2.70 | 2.70 | 3.38 | 4.05 | 4.88 | 4.88 | 6.10 | 7.33 | 8.97 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 | 9.80 |
| | | kgf.cm | 9.18 | 11.0 | 15.3 | 18.4 | 23.0 | 27.6 | 27.6 | 34.5 | 41.3 | 49.5 | 49.5 | 62.2 | 74.7 | 90.0 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

### Motor Overall Dimension




●The value in the ( ) is the value of small gear shaft motor.

**Model of Gearbox: 5GN □ K**

| Frequency | Reduction Ratio | | 180 | 200 |
|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 8 | 7.5 |
| | Allowable Torque | N.m | 9.80 | 9.80 |
| | | kgf.cm | 100 | 100 |
| 60Hz | Output Shaft Speed | r/min | 10 | 9 |
| | Allowable Torque | N.m | 9.80 | 9.80 |
| | | kgf.cm | 100 | 100 |

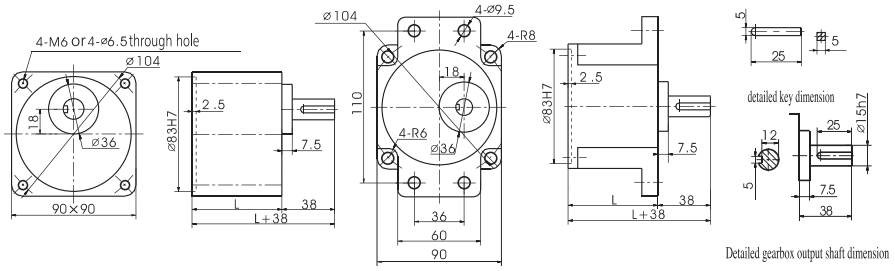


## List of Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | RPM | Allowable Torque | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 1200r/min | | 90r/min | | | | |
| Motor | Motor with gear shaft | W | V | Hz | P | | r/min | N.m | kgf.cm | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 5IK90RA-AF | 5IK90RGU-AF | 90 | 1ph110 | 50 | 4 | CONT | 90～1350 | 0.71 | 7.10 | 0.23 | 2.30 | 0.48 | 4.80 | 20.0/250 |
| 5IK90RA-CF | 5IK90RGU-CF | 90 | 1ph220 | 50 | 4 | CONT | 90～1350 | 0.71 | 7.10 | 0.23 | 2.30 | 0.45 | 4.50 | 5.0/450 |

●The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage. ●Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Overall Dimension of Gearbox



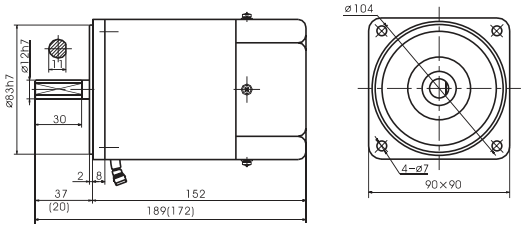

| | Reduction Ratio | L(mm) | Weight (kg) |
|---|---|---|---|
| Gearbox | 5GU3K-GU9K | 65 | 1.21 |
| | 5GU10K-GU18K | | 1.30 |
| | 5GU20K-GU75K | | 1.40 |
| | 5GU90K-GU200K | | 1.45 |
| Motor | | | 3.20 |

## Allowable Torque on Gearbox

**Model of Gearbox: 5GU □ K**

| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 |
| | Allowable Torque | N.m | 1.55 | 1.86 | 2.58 | 3.10 | 3.87 | 4.64 | 4.65 | 5.81 | 6.98 | 8.37 | 8.40 | 10.5 | 12.6 | 15.1 | 16.8 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 |
| | | kgf.cm | 15.8 | 19.0 | 29.2 | 31.6 | 39.6 | 47.2 | 47.4 | 59.3 | 71.2 | 85.4 | 85.7 | 107 | 129 | 154 | 171 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 |
| | Allowable Torque | N.m | 1.35 | 1.62 | 2.25 | 2.70 | 3.37 | 4.04 | 4.05 | 5.06 | 6.07 | 7.29 | 7.32 | 9.15 | 11.0 | 13.2 | 14.6 | 18.3 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 |
| | | kgf.cm | 13.8 | 16.5 | 23.0 | 27.6 | 34.4 | 41.2 | 41.3 | 51.6 | 61.9 | 74.4 | 74.7 | 93.4 | 112 | 135 | 149 | 187 | 200 | 200 | 200 | 200 | 200 | 200 |

### Motor Overall Dimension




●The value in the ( ) is the value of small gear shaft motor.

**Model of Gearbox: 5GU □ K**

| Frequency | Reduction Ratio | | 180 | 200 |
|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 8 | 7.5 |
| | Allowable Torque | N.m | 19.6 | 19.6 |
| | | kgf.cm | 200 | 200 |
| 60Hz | Output Shaft Speed | r/min | 10 | 9 |
| | Allowable Torque | N.m | 19.6 | 19.6 |
| | | kgf.cm | 200 | 200 |

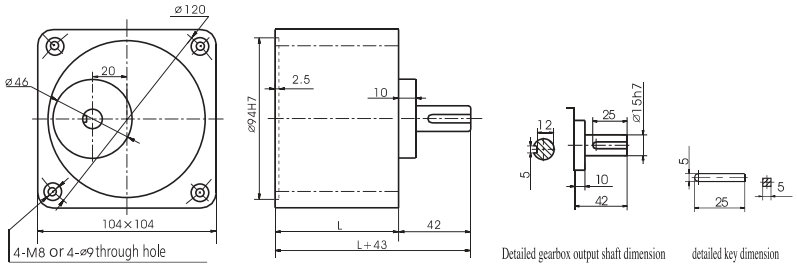


## List of Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | RPM | Allowable Torque | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 1200r/min | | 90r/min | | | | |
| Motor | Motor with gear shaft | W | V | Hz | P | | r/min | N.m | kgf.cm | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 6IK120RA-AF | 6IK120RGU-AF | 120 | 1ph110 | 50 | 4 | CONT | 90～1350 | 0.75 | 7.50 | 0.40 | 4.00 | 0.51 | 5.10 | 25.0/250 |
| 6IK120RA-CF | 6IK120RGU-CF | 120 | 1ph220 | 50 | 4 | CONT | 90～1350 | 0.75 | 7.50 | 0.40 | 4.00 | 0.65 | 6.50 | 8.0/450 |

●The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage. ●Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Overall Dimension of Gearbox



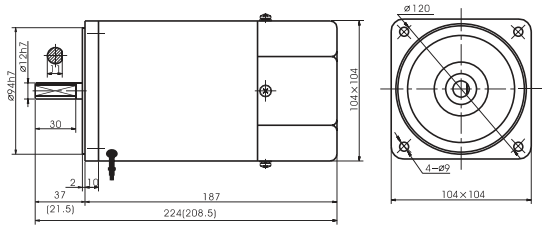

| | Reduction Ratio | L(mm) | Weight (kg) |
|---|---|---|---|
| Gearbox | 6GU3K-GU9K | 72 | 1.87 |
| | 6GU10K-GU18K | | 2.10 |
| | 6GU20K-GU200K | | 2.75 |
| Motor | | | 4.85 |

## Allowable Torque on Gearbox

**Model of Gearbox: 6GU □ K**

| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 |
| | Allowable Torque | N.m | 2.06 | 2.48 | 3.44 | 4.13 | 5.16 | 6.19 | 6.19 | 7.75 | 9.30 | 11.2 | 11.2 | 14.0 | 16.8 | 20.0 | 22.4 | 28.0 | 33.6 | 39.2 | 39.2 | 39.2 | 39.2 | 39.2 |
| | | kgf.cm | 21.0 | 25.3 | 35.1 | 42.1 | 52.6 | 63.2 | 63.2 | 79.1 | 94.9 | 114 | 114 | 143 | 171 | 206 | 228 | 286 | 343 | 400 | 400 | 400 | 400 | 400 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 |
| | Allowable Torque | N.m | 1.74 | 2.09 | 2.90 | 3.48 | 4.35 | 5.22 | 5.22 | 6.54 | 7.85 | 9.42 | 9.42 | 11.8 | 14.2 | 17.0 | 18.9 | 23.6 | 28.4 | 35.5 | 39.2 | 39.2 | 39.2 | 39.2 |
| | | kgf.cm | 17.8 | 21.3 | 29.6 | 35.5 | 44.4 | 53.3 | 53.3 | 69.7 | 80.0 | 96.1 | 96.1 | 121 | 146 | 174 | 193 | 241 | 289 | 362 | 400 | 400 | 400 | 400 |

### Motor Overall Dimension




●The value in the ( ) is the value of small gear shaft motor.

**Model of Gearbox: 6GU □ K**

| Frequency | Reduction Ratio | | 180 | 200 |
|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 8 | 7.5 |
| | Allowable Torque | N.m | 39.2 | 39.2 |
| | | kgf.cm | 400 | 400 |
| 60Hz | Output Shaft Speed | r/min | 10 | 9 |
| | Allowable Torque | N.m | 39.2 | 39.2 |
| | | kgf.cm | 400 | 400 |

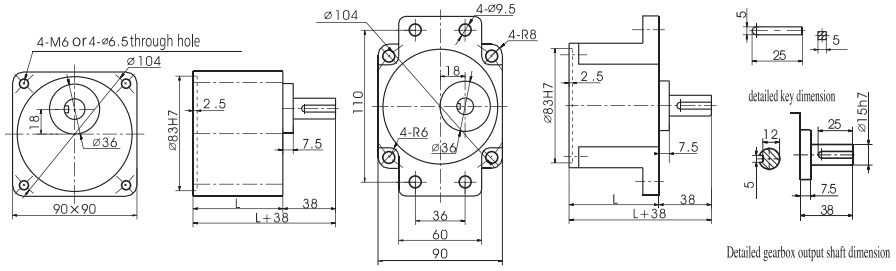


## List of Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | RPM | Allowable Torque | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 1200r/min | | 90r/min | | | | |
| Motor | Motor with gear shaft | W | V | Hz | P | | r/min | N.m | kgf.cm | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 5IK120A-AF | 5IK120RGU-AF | 120 | 1ph110 | 50 | 4 | CONT | 90～1350 | 0.75 | 7.50 | 0.40 | 4.00 | 0.55 | 5.50 | 25.0/250 |
| 5IK120A-CF | 5IK120RGU-CF | 120 | 1ph220 | 50 | 4 | CONT | 90～1350 | 0.75 | 7.50 | 0.40 | 4.00 | 0.65 | 6.50 | 7.0/450 |

●The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage. ●Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Overall Dimension of Gearbox



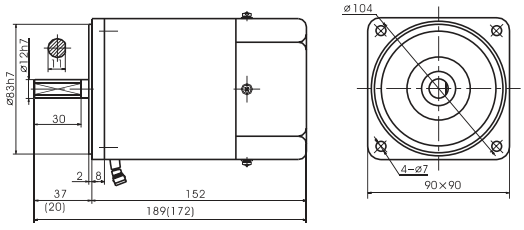

| | Reduction Ratio | L(mm) | Weight (kg) |
|---|---|---|---|
| Gearbox | 5GU3K-GU9K | 65 | 1.21 |
| | 5GU10K-GU18K | | 1.30 |
| | 5GU20K-GU75K | | 1.40 |
| | 5GU90K-GU200K | | 1.45 |
| Motor | | | 3.20 |

## Allowable Torque on Gearbox

**Model of Gearbox: 5GU □K**

| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 |
| | Allowable Torque | N.m | 2.14 | 2.57 | 3.57 | 4.29 | 5.38 | 6.43 | 6.43 | 8.05 | 9.66 | 11.6 | 11.6 | 14.6 | 17.5 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 |
| | | kgf.cm | 21.8 | 26.2 | 36.4 | 43.8 | 54.7 | 65.6 | 65.6 | 82.1 | 98.6 | 118 | 118 | 149 | 196 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 |
| | Allowable Torque | N.m | 1.80 | 2.16 | 3.00 | 3.60 | 4.49 | 5.39 | 5.39 | 6.75 | 8.10 | 9.72 | 9.72 | 12.2 | 14.6 | 17.6 | 19.5 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 | 19.6 |
| | | kgf.cm | 18.4 | 22.0 | 30.6 | 36.7 | 45.8 | 55.0 | 55.0 | 68.9 | 82.7 | 99.2 | 99.2 | 124 | 149 | 180 | 199 | 200 | 200 | 200 | 200 | 200 | 200 | 200 |

### Motor Overall Dimension




●The value in the ( ) is the value of small gear shaft motor.

**Model of Gearbox: 5GU □K**

| Frequency | Reduction Ratio | | 180 | 200 |
|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 8 | 7.5 |
| | Allowable Torque | N.m | 19.6 | 19.6 |
| | | kgf.cm | 200 | 200 |
| 60Hz | Output Shaft Speed | r/min | 10 | 9 |
| | Allowable Torque | N.m | 19.6 | 19.6 |
| | | kgf.cm | 200 | 200 |



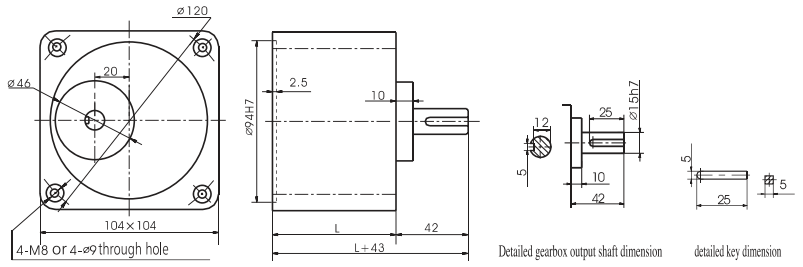



## List of Motor Characteristics

| Model of Motor | | Output | Voltage | Frequency | Poles | Duty | RPM | Allowable Torque | | | | Starting Torque | | Capacitor/Ve |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 1200r/min | | 90r/min | | | | |
| Motor | Motor with gear shaft | W | V | Hz | P | | r/min | N.m | kgf.cm | N.m | kgf.cm | N.m | kgf.cm | μF/VAC |
| 6IK140RA-AF | 6IK140RGU-AF | 140 | 1ph110 | 50 | 4 | CONT | 90～1350 | 0.85 | 8.50 | 0.45 | 4.50 | 0.62 | 6.20 | 30.0/250 |
| 6IK140RA-CF | 6IK140RGU-CF | 140 | 1ph220 | 50 | 4 | CONT | 90～1350 | 0.85 | 8.50 | 0.45 | 4.50 | 0.68 | 6.80 | 10.0/450 |

●The capacitor capacitance will be different under different voltage. A correct capacitor capacitance is required to match the applied voltage. ●Wrong capacitor capacitance is the cause of trouble. You must confirm a correct voltage and select a correct model when your purchase order is placed.

## Overall Dimension of Gearbox



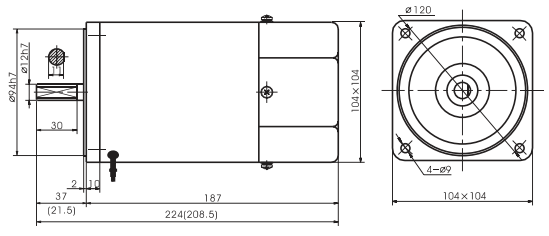

| | Reduction Ratio | L(mm) | Weight (kg) |
|---|---|---|---|
| Gearbox | 6GU3K-GU9K | 72 | 1.87 |
| | 6GU10K-GU18K | | 2.10 |
| | 6GU20K-GU200K | | 2.75 |
| Motor | | | 5.05 |

## Allowable Torque on Gearbox

**Model of Gearbox: 6GU □ K**

| Frequency | Reduction Ratio | | 3 | 3.6 | 5 | 6 | 7.5 | 9 | 10 | 12.5 | 15 | 18 | 20 | 25 | 30 | 36 | 40 | 50 | 60 | 75 | 90 | 100 | 120 | 150 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 500 | 417 | 300 | 250 | 200 | 166 | 150 | 120 | 100 | 83 | 75 | 60 | 50 | 41 | 37 | 30 | 25 | 20 | 16 | 15 | 12 | 10 |
| | Allowable Torque | N.m | 2.36 | 2.83 | 3.93 | 4.71 | 5.89 | 7.07 | 7.07 | 8.85 | 10.6 | 12.7 | 12.7 | 16.0 | 19.2 | 23.0 | 25.6 | 32.0 | 38.4 | 39.2 | 39.2 | 39.2 | 39.2 | 39.2 |
| | | kgf.cm | 24.1 | 28.8 | 40.1 | 48.1 | 60.1 | 72.1 | 72.1 | 90.3 | 108 | 130 | 130 | 163 | 196 | 235 | 261 | 327 | 392 | 400 | 400 | 400 | 400 | 400 |
| 60Hz | Output Shaft Speed | r/min | 600 | 500 | 360 | 300 | 240 | 200 | 180 | 144 | 120 | 100 | 90 | 72 | 60 | 50 | 45 | 36 | 30 | 24 | 20 | 18 | 15 | 12 |
| | Allowable Torque | N.m | 2.03 | 2.44 | 3.39 | 4.06 | 5.08 | 6.09 | 6.09 | 7.60 | 9.15 | 11.0 | 11.0 | 13.8 | 16.6 | 19.9 | 22.1 | 27.6 | 33.1 | 39.2 | 39.2 | 39.2 | 39.2 | 39.2 |
| | | kgf.cm | 20.7 | 24.9 | 34.6 | 41.2 | 51.8 | 62.1 | 62.1 | 77.6 | 93.4 | 112 | 112 | 141 | 169 | 203 | 226 | 282 | 338 | 400 | 400 | 400 | 400 | 400 |

### Motor Overall Dimension




●The value in the ( ) is the value of small gear shaft motor.

**Model of Gearbox: 6GU □ K**

| Frequency | Reduction Ratio | | 180 | 200 |
|---|---|---|---|---|
| 50Hz | Output Shaft Speed | r/min | 8 | 7.5 |
| | Allowable Torque | N.m | 39.2 | 39.2 |
| | | kgf.cm | 400 | 400 |
| 60Hz | Output Shaft Speed | r/min | 10 | 9 |
| | Allowable Torque | N.m | 39.2 | 39.2 |
| | | kgf.cm | 400 | 400 |

# Product Parameter Questionnaire

| | | | | | | |
|---|---|---|---|---|---|---|
| Company name | | | | | | |
| Contact | Address | | | | | |
| | Your name | | | | | |
| | Dept. | | | | | |
| | Position | | | | | |
| | Tel. | | | | | |
| | Fax | | | | | |
| | E-mail | | | | | |
| | Website | | | | | |
| Motor Designation | | | _ | | _ | (Ex: RS-360PA-12390) |
| Application | | | | | | (Ex:Air pump) |
| Projected quantity | | pcs/year | | pcs/month | | |
| Size of motor | Flat type | Diameter(φ) | height | length | | mm |
| | Round type | Diameter(φ) | length | | | mm |
| Input voltage | | | ☐ AC | ☐ DC | | |
| Direction of rotation(viewing from output shaft) | | ☐ 顺时针CW ☐ 逆时针CCW ☐ 双向Bi-directional | | | | |
| Speed | At no load | | RPM | | | |
| | At rated load | | RPM | | | |
| Current | At no load | | A | | | |
| | At rated load | | A | | | |
| | At stall | | A | | | |
| Torque | At rated load | | mN.m | | g.cm | |
| | At stall | | mN.m | | g.cm | |
| Life requirement | Continuous | Hours | | | | |
| | Periodical | second on | second off | cycles | | |
| | Total required running time | Hours | | | | |
| Other requirements | | | | | | |




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