



AC Precision Small Gear Motor

- High Performance
- Long Life
- Low Noise
- Low Temperature
- Limited 1 Year Warranty



2019-2020

OPERATION AND INSTALLATION OF GEAR REDUCER

■ USAGE AND INSTALLATION**■ CHECK BEFORE OPERATING**

- Make sure that model type, horse power, shaft direction, reduction ratio, revolution direction and revolutions of input/output shafts match with each other.
- Check oil situation, make sure there is oil, and keep the oil in the oil area more than half.

■ PLACE

- The gear reducer shall be installed in a flat and firm base.
- The installation environment shall be dry and well ambient temperature 0°C-40°C, Abnormal high or low temperature shall be indicated.

■ CONNECTING METHOD

- CH, CV
- If coupler is used to connect input or output shaft, make sure they are firmly fixed and paralleled, The base seat shall be anchored with proper bolts
- All of the components shall be properly assembled to shaft, Avoid hammering and over tight assembly which could damage the bearing.
- The pulley, chain pulley and gear shall be assembled as close to the bearing as possible to minimize the curving stress, The chain.
- Pulley and belt pulley used to connect the output shaft shall be properly chosen (within 6 times as large as the diameter of output shaft) and used in.
- According to H7 tolerance SO as to keep out of abnormal noise and harm to the shaft surface.
- Proper amount of grease can be applied to GHM and GVM input while going to ensure the hole against over-wearing and making abnormal noise.
- The application of anti-rust paint can keep the shaft from rusting.

■ MOTOR

- The voltage variation over 10% could cause motor to burn out and reduce the torque of output shaft.
- Motor is subject to damage due to overload.
- Improper connection could cause motor to burn out.
- High moisture environment could cause the brake of motor rusted and disabled.
- An appropriate motor shall be applied with the frequency converter when the low frequency is required usual condition.
- The installation of the power supply into line protection switch reduces motor burned.

INSTRUCTIONS FOR USE**■ GENERAL SPECIFICATION**

Items	Contents
Insulation resistance	Cold insulation resistance of the motor conductive part to the housing is no less than 100MΩ.
Insulation dielectric strength	Insulation Dielectric strength: the conductive part and the housing of the motor withstand 500V lasting 1 min, for pressure proof experiment but can not be punctured. When the rated voltage ≤60V; the conductive part and the housing of the motor withstand 1500V lasting 1 min.
Temperature rise	The temperature rise should be lower than ≤ 75K measured by resistance method when the motor is working.
Insulation class	Class B(130°C)
Using temperature	-10 °C ~ +40°C (No freeze)
Using humidity	≤85%(Place without dew)

TRANSMISSION EFFICIENCY OF THE GEAR REDUCERS

Ratio GEAR Model No.	3	3.6	5	6	7.5	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180
2GN□K																						
	81 %																73 %					66 %
3GN□K																						
	81 %																73 %					66 %
4GN□K																						
	81 %																73 %					66 %
5GN□K																	73 %					66 %
5GU□K																	73 %					66 %
6GU□K																	73 %					66 %

NOTE :

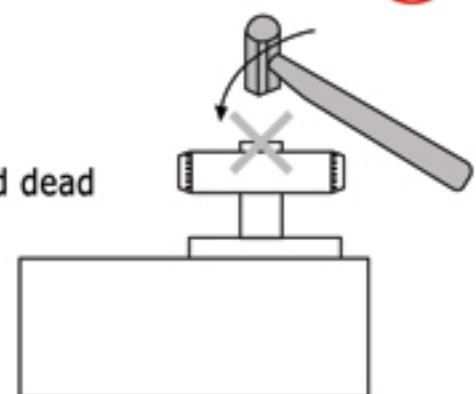
Connect wire in right way

Don't run on-load long time, run over load in low speed, or locked motor to avoid excess temperature

Don't drag the expansion line of tachogenerator

Don't disassemble or reassemble the assemble gear head to prevent the bad noise

Don't beat or squeeze when connect the gear head extend axle to load to avoid the phenomena of bad noise or locked dead that caused by defoumation and dialocation.



TERMINOLOGY FOR THE GEAR REDUCERS

OUTPUT POWER

It depends on the speed and torque

$$P = \frac{T \cdot n}{9549} \quad (\text{W})$$

$$\begin{aligned} T &= \text{torque (mN.m)} \\ n &= \text{(r/min)} \end{aligned}$$

$$P = \frac{T \cdot n}{9549} \quad (\text{W})$$

$$\begin{aligned} T &= \text{torque (mN.m)} \\ n &= \text{speed (r/min)} \end{aligned}$$

RATED OUTPUT POWER

It depends on the rated torque and speed

- Synchronous speed

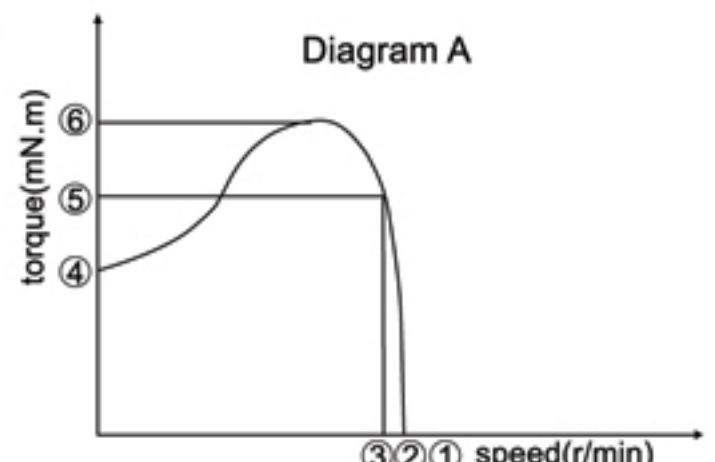
It depends on the frequency of the power supply and the number of poles of the motor (see diagram A point 1)

$$\frac{N=120f}{P} \quad (\text{r/min})$$

f-frequency

p-number of poles

1. Synchronous speed
2. No-Load speed
3. Rated Speed
4. Starting Torque
5. Max. Torque
6. Rated Torque



- No load speed

It is the speed under motor shaft no load rotated (see diagram A point 2)

- Rated speed

This speed is measured under condition of rated output power. (see diagram A point 3)

TORQUE

- Starting torque

This measured under the condition of rated voltage and frequency at the moment of starting (see diagram A point 4)

- Maximum torque

It is the largest torque motor can generate under rated voltage and frequency. (see diagram A point 5)

- Rated torque

It is measured under rated voltage, frequency and speed. (see diagram A point 6)

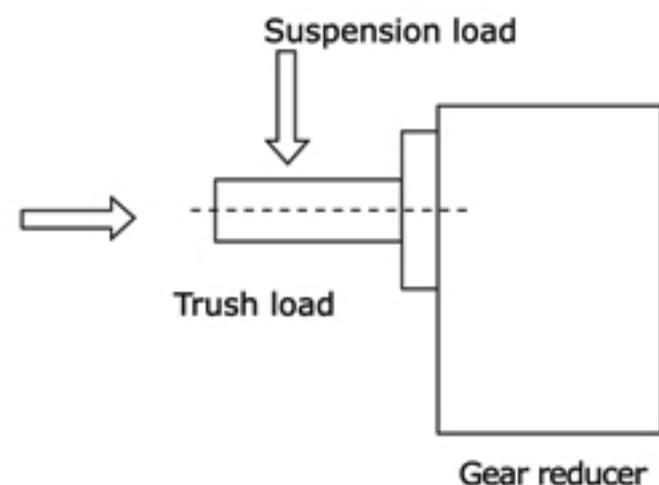
TERMINOLOGY FOR THE GEAR REDUCERS,

REDUCER SELECTION METHOD

To coordinate between the type of motor and wattage of power used, the following classification is made according to the loading conditions: Model GN-for 6W,25W,40W(Oil bearing for applications in light loading, ball bearing shall be used for those heavier loading), Model GU-60W,90W,120W,140W,180W,200W (Using ball bearing for all GU type motor).

ALLOW THE SUSPENDED LOAD AND ALLOWABLE THRUST LOAD (RIGHT)

Transmission mechanism such as chain, gears, or belt can be used as an output shaft for the speed reduction gearing. Suppose the suspension load is increased (vertically to the shaft) at the output shaft which should be effected directly against the applicable life regarding to relations between suspension load and thrust load.



GEAR Model NO.	Ratio	(kg.cm) Max.permissible torque	(kg) Max.permissible pendent load		permissible thrust load
			Measuring point of 10mm from the end	Measuring point of 20mm from the end	
2GN□K	3~18	25	5	8	3
	20~180		12	18	
3GN□K	3~18	50	8	12	4
	20~180		15	25	
4GN□K	3~18	80	10	15	5
	20~180		20	30	
5GN□K	3~18	100	25	35	10
	20~180		30	45	
5GU□K	3~18	200	40	50	15
	12.5~18		45	60	
	20~180		50	70	
6GU□K	3~10	450	60	80	20
	12.5~18		70	90	
	20~180		80	100	

REDUCER MODEL DESCRIPTION (GN, GU TYPE)



Dimension of Device

- 2: 60mm 3: 70mm
4: 80mm 5: 90mm
6: 104mm

3 GN - 100 - □

K:Ball bearing

Ratio:1:100
10X
The middle gear

GN : Bevel gear shaft (6, 15, 25, 40, 60W)
GU : Bevel gear shaft
(90, 120, 140, 180, 200, 250W)

INDUCTION MOTOR MODEL DESCRIPTION (IK, RK,TK TYPE)



3 - K 15 R GN - C - □ - □

Accessories

M: With Electromagnetic Brake
F : With Fans
CB : Electromagnetic Clutch / Brake

Voltage
A : Single Phase 110 V
C : Single Phase 220 V
S : 3-Phase 220 V
S3 : Phase 380 V
S4 : Phase 440 V
S:S : 3 Phase 380 / 220 V
DC : 6 / 12 / 24 / 90 / 180 V

Frame size

- 2: 60mm 3: 70mm
4: 80mm 5: 90mm
6: 104mm

Type
I : Induction Motor
R : Reversible Motor
T : Torque Motor
D : DC Motor

Series
(K) Series

Power
(6, 15, 25, 40, 60, 90, 120,
140, 180, 200, 250W)

SPEED CONTROL MOTOR

Shaft Type
A: Round Shaft
GN: Bevel Gear Shaft
(5, 15, 25, 40, 60W)
GU: Bevel Gear Shaft
(40, 60, 90, 120, 140, 180, 200, 250W)

Round Shaft With Key
G9 : RV025
G11: RV030/040
G14: RV040/050

6W / 15W INDUCTION MOTOR (K SERIES SINGLE PHASE 110V 220V)

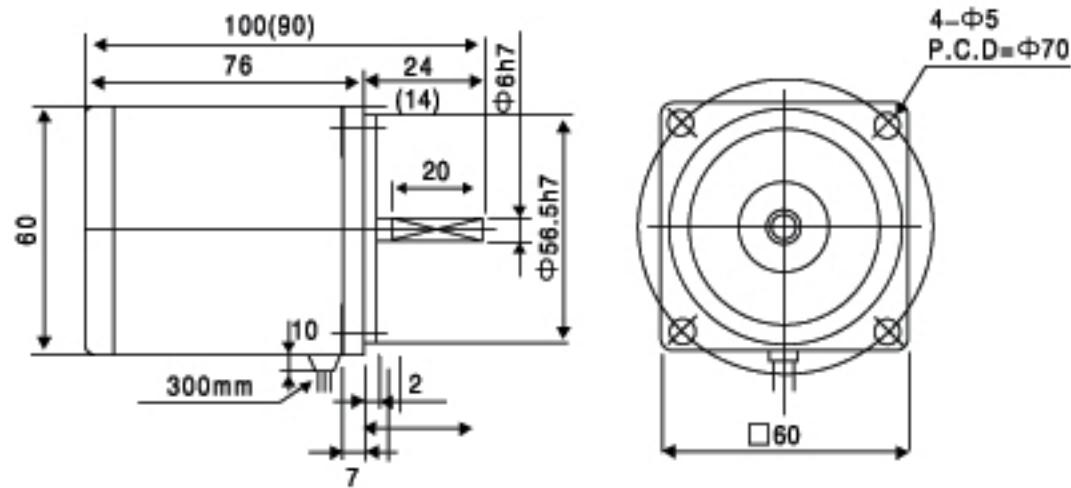
SPECIFICATIONS

Type	(W) Power	(V) Voltage	(Hz) Frequency	(A) Current	(Kg.cm) Starting torque	(Kg.cm) Rated torque	(rpm) Rated Speed	Rated time	(μF) Capacitor
2IK6GN-A	6	1φ 110	50/60	0.25	0.42	0.42	1250/1550	Continue	3/250V
2I(R)K6GN-C	6	1φ 220	50/60	0.13	0.42	0.42	1250/1550	Continue	0.8/450V
3IK15GN-A	15	1φ 110	50/60	0.31	0.95	1.18	1250/1550	Continue	5/250V
3I(R)K15GN-C	15	1φ 220	50/60	0.16	0.95	1.18	1250/1550	Continue	1.2/450V
3IK15GN-S3(S)	15	3φ 380(220)	50/60	0.7(1.2)	2.0	1.10	1250/1550	Continue	-

MOTOR

Weight : 0.8kg

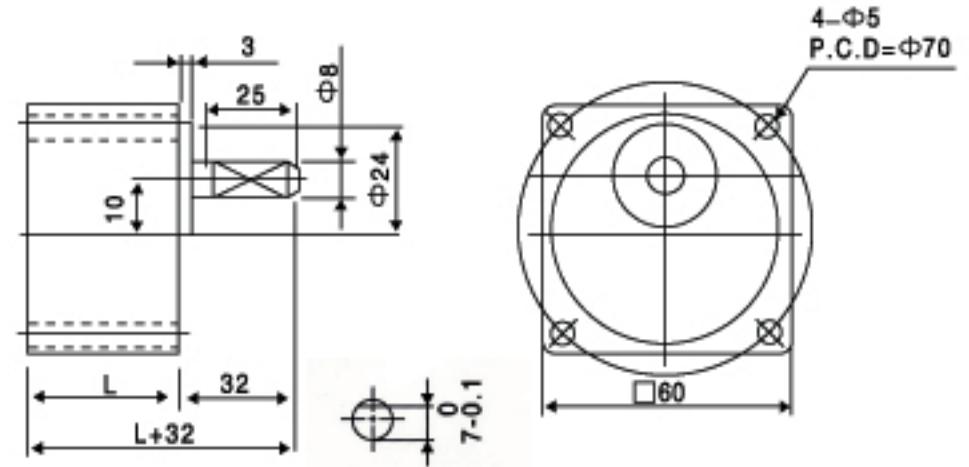
2I(R)K6GN-A(C) 2IK6A-A(C) 2IK6RA-A(C) 2IK6RGN-A(C)



GEAR HEAD

2GN□

2GN - 3~18 L=32 0.35kg 2GN - 20~180 L=42 0.45kg

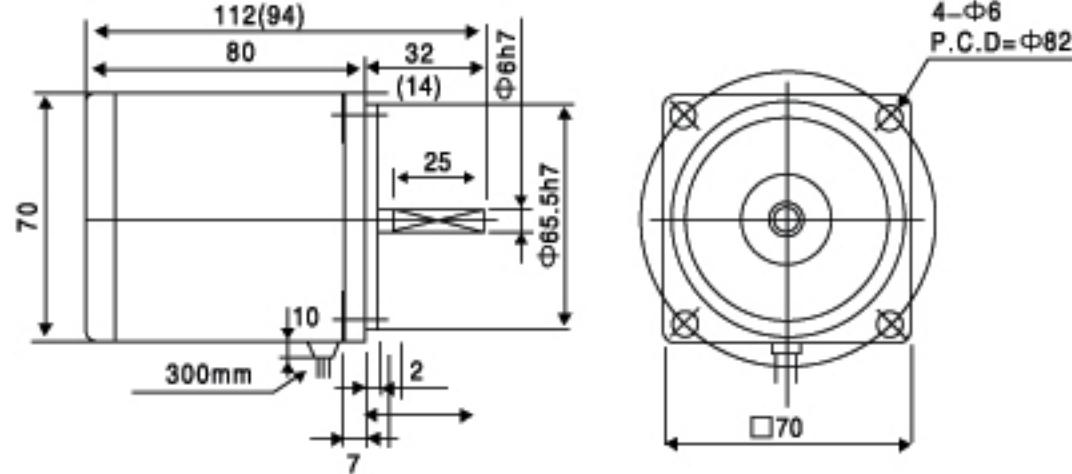


()Numbers Show the dimension of the pinion shaft.

MOTOR

Weight : 1.2kg

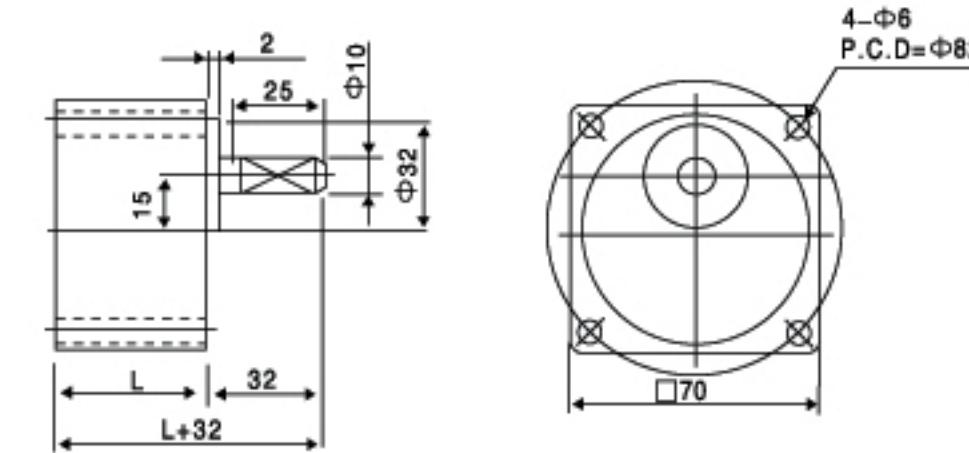
3IK15GN-A(C) 3IK15A-A(C) 3IK15RA-A(C) 3IK15RGN-A(C)



GEAR HEAD

3GN□

3GN - 3~18 L=32 0.45kg 3GN - 20~180 L=42 0.55kg



()Numbers Show the dimension of the pinion shaft.

LOAD PERMISSIBLE WITH SPEED REDUCER

	500	416	300	250	200	150	120	100	83	75	60	50	40	37.5	30	25	20	16.7	15	12.5	10	8.3
Reduction ratio	3	3.6	5	6	7.5	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180
Permissible load	6W kg.cm	0.9	1.0	1.5	1.8	2.3	3.0	3.8	4.5	5.4	5.6	7.0	8.3	10	11	14	16	19	23	25	25	25
	15W kg.cm	2.2	2.6	3.7	4.4	5.5	7.2	9.1	11	13	14	17	21	24	29	34	41	47	50	50	50	50

Speed figures are based on synchronous speed, The actual output speed, under rated torque conditions, is about 2~20% less than synchronous speed.

25W/40W INDUCTION MOTOR (K SERIES SINGLE PHASE 110V 220V / THREE PHASE 220V 380V)

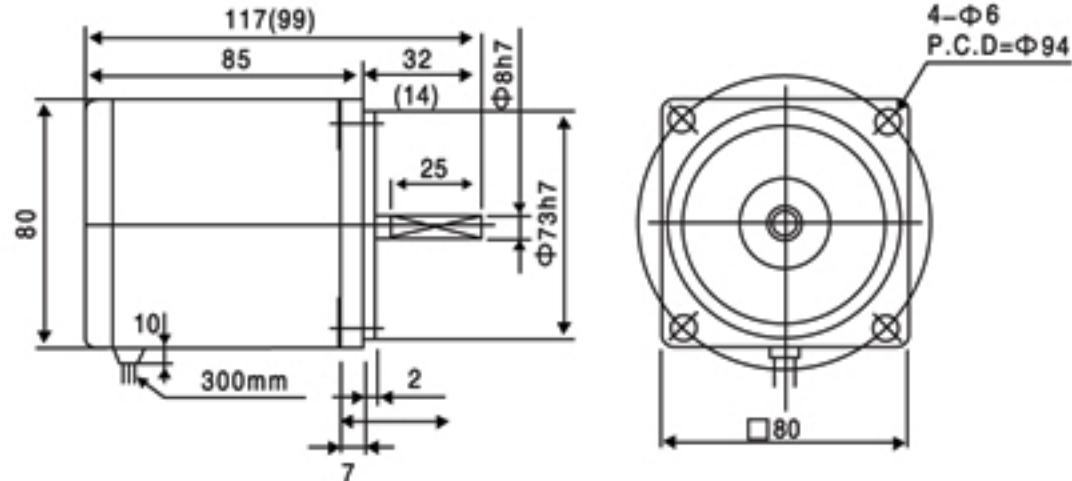
SPECIFICATIONS

Type	(W) Power	(V) Voltage	(Hz) Frequency	(A) Current	(Kg.cm) Starting torque	(Kg.cm) Rated torque	(rpm) Rated Speed	Rated time	(μF) Capacitor
4IK25GN-A	25	1φ 110	50/60	0.52	1.5	2.05	1350/1550	Continue	8/250V
4I(R)K25GN-C	25	1φ 220	50/60	0.25	1.5	2.05	1350/1550	Continue	2/450V
4IK25GN-S ₃ (S)	25	3φ 380(220)	50/60	0.12(0.21)	4.0	1.80	1350/1550	Continue	-
5IK40GN(U)-A	40	1φ 110	50/60	0.65	2.4	2.9	1350/1550	Continue	12/250V
5I(R)K40GN(U)-C	40	1φ 220	50/60	0.33	2.4	2.9	1350/1550	Continue	3/450V
5IK40GN-S ₃ (S)	40	3φ 380(220)	50/60	0.18(0.31)	6.6	2.8	1350/1550	Continue	-

MOTOR

Weight : 1.65kg

4I(R)K25GN-(A/C/S₃S) 4IK25A-A(C) 4IK25RA-A(C)F 4IK25RGN-A(C)F

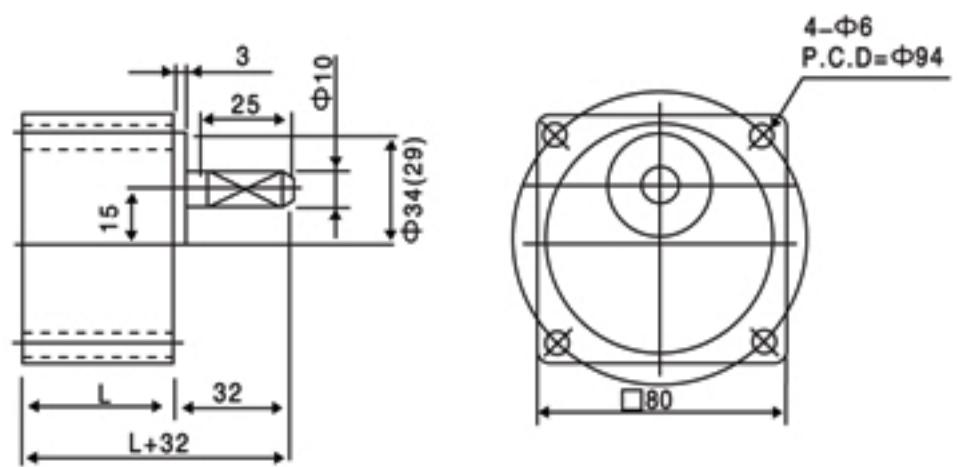


()Numbers Show the dimension of the pinion shaft.

GEAR HEAD

4GN□

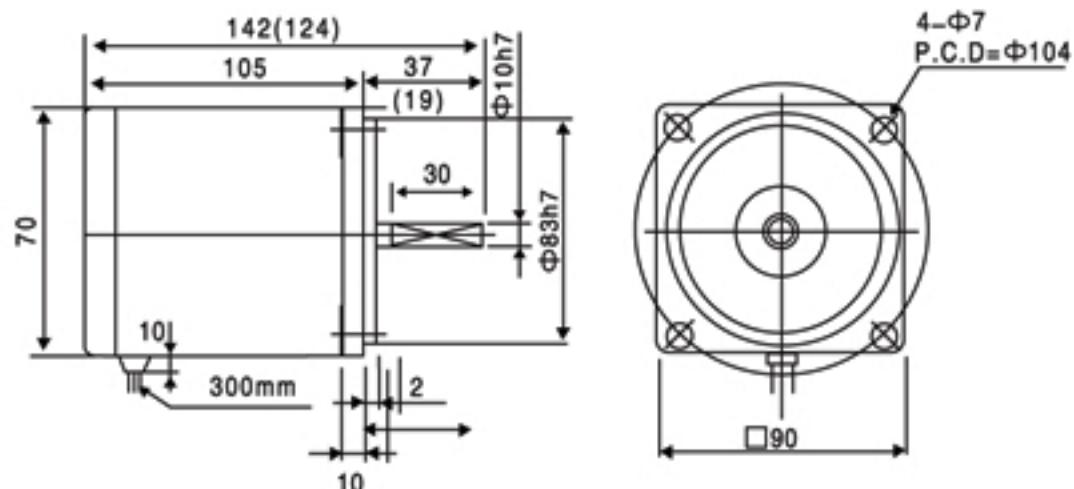
4GN - 3~18 L=35 0.5kg 4GN - 20~180 L=48 0.7kg



MOTOR

Weight : 2.5kg

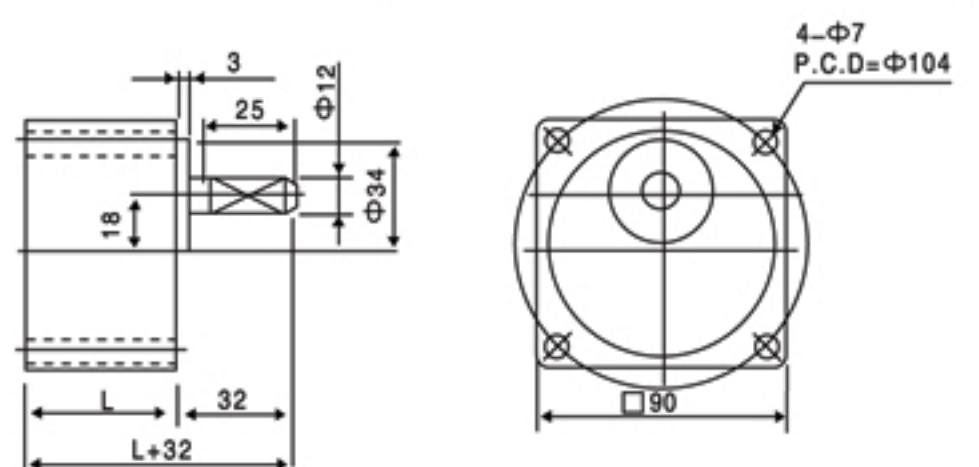
5I(R)K40GN(U)-(A/C/S₃S) 5IK40RA-A(C)F 5IK40RA-A(C)F 5IK40RGN(U)-A(C)F



GEAR HEAD

5GN□

5GN - 3~18 L=42 0.7kg 5GN - 20~180 L=60 1.05kg



()Numbers Show the dimension of the pinion shaft.

LOAD PERMISSIBLE WITH SPEED REDUCER

r/min	500	416	300	250	200	150	120	100	83	75	60	50	40	37.5	30	25	20	16.7	15	12.5	10	8.3	
Reduction ratio	3	3.6	5	6	7.5	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	
Permissible load	25W kg.cm	3.7	4.4	6.1	7.3	9.1	12	15	18	22	23	28	34	44	49	61	67	79	80	80	80	80	80
	40W kg.cm	6.0	7.3	10	12	15	30	25	30	36	38	47	56	68	75	94	100	100	100	100	100	100	100

60W/90W INDUCTION MOTOR (K SERIES SINGLE PHASE 110V 220V / THREE PHASE 220V 380V)

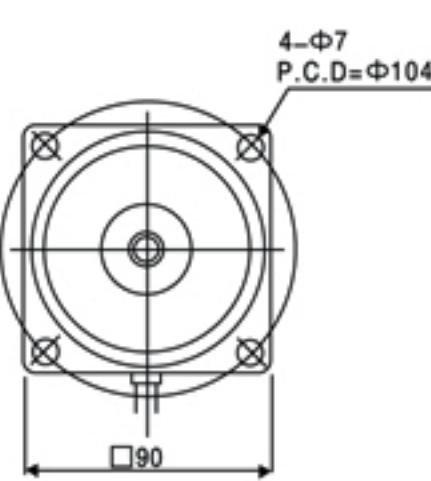
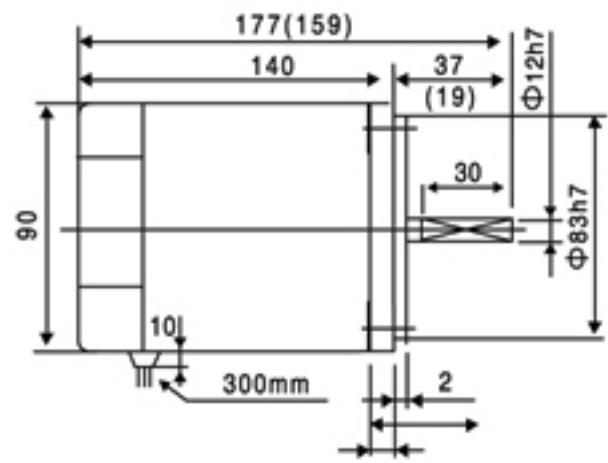
SPECIFICATIONS

Type	(W) Power	(V) Voltage	(Hz) Frequency	(A) Current	(Kg.cm) Starting torque	(Kg.cm) Rated torque	(rpm) Rated Speed	Rated time	(μF) Capacitor
5IK60GN-AF	60	1 φ 110	50/60	1.12	3.5	4.5	1350/1550	Continue	15/250V
5I(R)K60GN(U)-CF	60	1 φ 220	50/60	0.52	3.5	4.5	1350/1550	Continue	4/450V
5IK60GN(U)-S ₃ (S)F	60	3 φ 380(220)	50/60	0.25(0.43)	11	4.5	1350/1550	Continue	-
5IK90GU-AF	90	1 φ 110	50/60	1.5	6	6.7	1350/1550	Continue	24/250V
5I(R)K90GU-CF	90	1 φ 220	50/60	0.72	6	6.7	1350/1550	Continue	5.5/450V
5IK90GU-S ₃ (S)F	90	3 φ 380(220)	50/60	0.38(0.65)	15.3	6.7	1350/1550	Continue	-

MOTOR

Weight : 2.6kg

5I(R)K60GN(U) - (A/C/S₃S)F 5IK60RA-A(C)F 5IK60RA-A(C)F 5IK60RGN-A(C)F

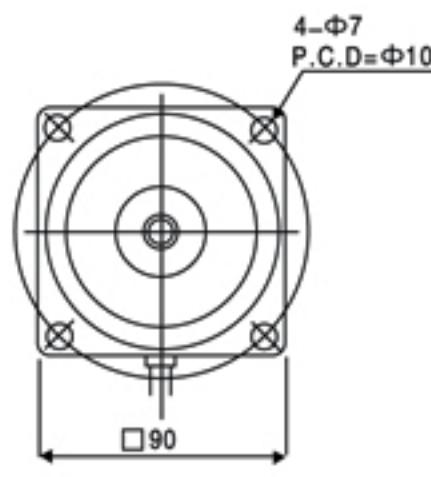
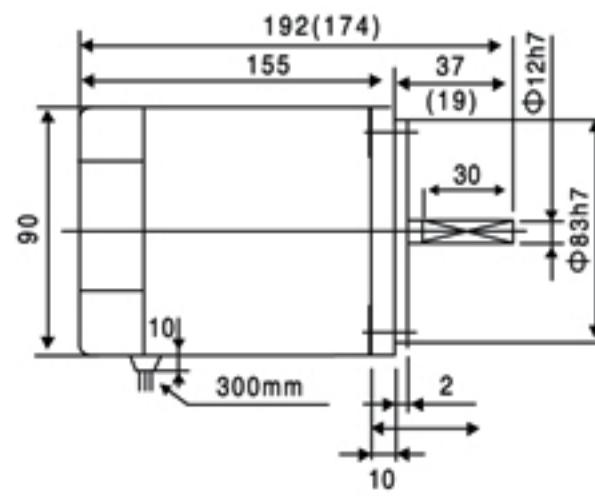


()Numbers Show the dimension of the pinion shaft.

MOTOR

Weight : 3.4kg

5I(R)K90GU - (A/C/S₃S)F 5IK90RA-A(C)F 5IK90RA-A(C)F 5IK90RGN-A(C)F



()Numbers Show the dimension of the pinion shaft.

GEAR HEAD

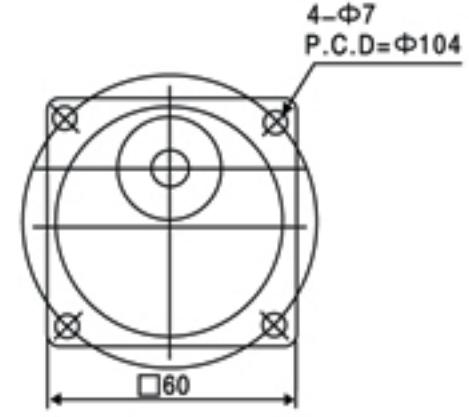
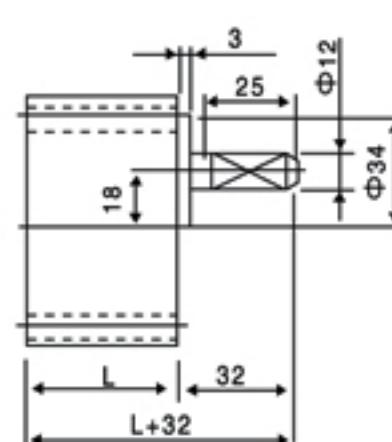
5GN□

5GN - 3~18 L=42

0.7kg

5GN - 20~180 L=60

1.05kg

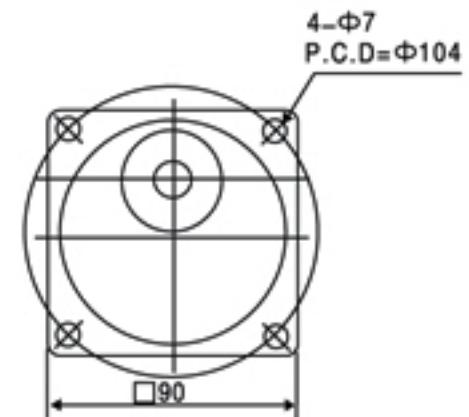
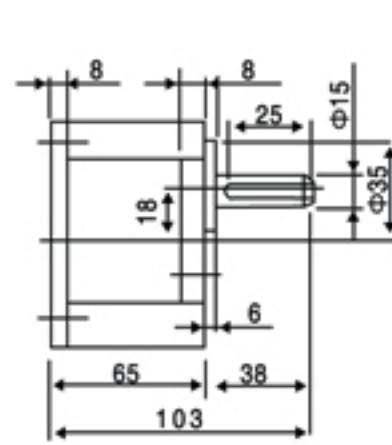


GEAR HEAD

5GU□

5GU-3~180KB

1.3kg



LOAD PERMISSIBLE WITH SPEED REDUCER

	500	416	300	250	200	150	120	100	83	75	60	50	40	37.5	30	25	20	16.7	15	12.5	10	8.3
Reduction ratio	3	3.6	5	6	7.5	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180
Permissible load	60W	kg.cm	9.0	11	15	18	23	30	34	45	54	56	69	83	100	111	139	150	150	150	150	150
	90W	kg.cm	12	15	21	26	32	40	50	60	72	74	73	111	134	148	185	200	200	200	200	200

Speed figures are based on synchronous speed. The actual output speed, under rated torque conditions, is about 2~20% less than synchronous speed.

120W/140W INDUCTION MOTOR (K SERIES SINGLE PHASE 110V 220V / THREE PHASE 220V 380V)

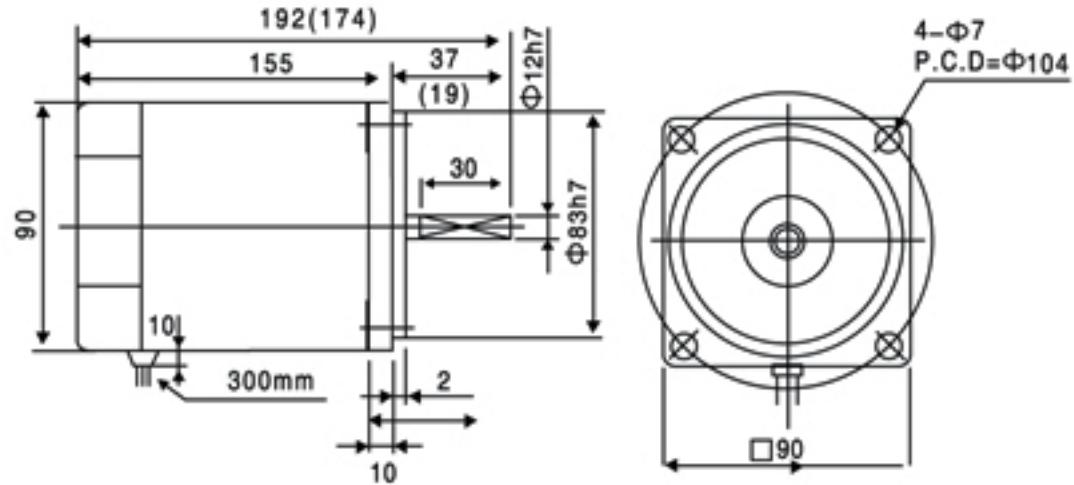
SPECIFICATIONS

Type	(W) Power	(V) Voltage	(Hz) Frequency	(A) Current	(Kg.cm) Starting torque	(Kg.cm) Rated torque	(rpm) Rated Speed	Rated time	(μF) Capacitor
5IK120GU-AF	120	1φ 110	50/60	1.95	8	9.8	1350/1550	Continue	30/250V
5I(R)K120GU-CF	120	1φ 220	50/60	0.98	8	9.8	1350/1550	Continue	8/450V
5IK120GU-S3(S)F	120	3φ 380(220)	50/60	0.48(0.83)	24	9.8	1350/1550	Continue	-
6IK140GU-AF	140	1φ 110	50/60	2.6	8.5	11	1350/1550	Continue	30/250V
6I(R)K140GU-CF	140	1φ 220	50/60	1.4	8.5	11	1350/1550	Continue	8/450V
6IK140GU-S3F	140	3φ 380(220)	50/60	0.7(1.2)	25	10.8	1350/1550	Continue	-

MOTOR

Weight : 3.4kg

5I(R)K120GU-(A/C/S3S)F 5IK120A-A(C)F 5IK120RA-A(C)F 5IK120RGU-A(C)F

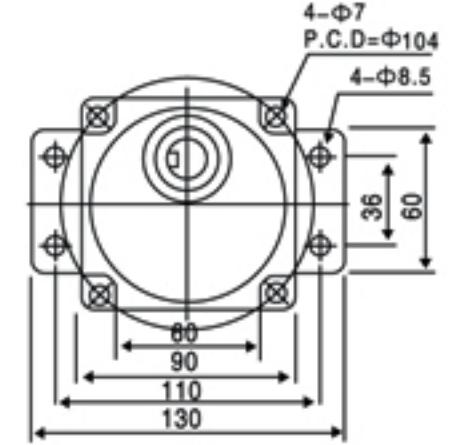
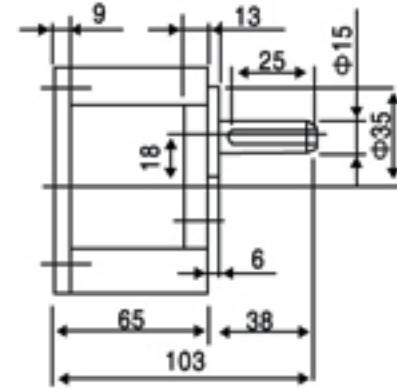


()Numbers Shown the dimension of the pinion shaft.

GEAR HEAD

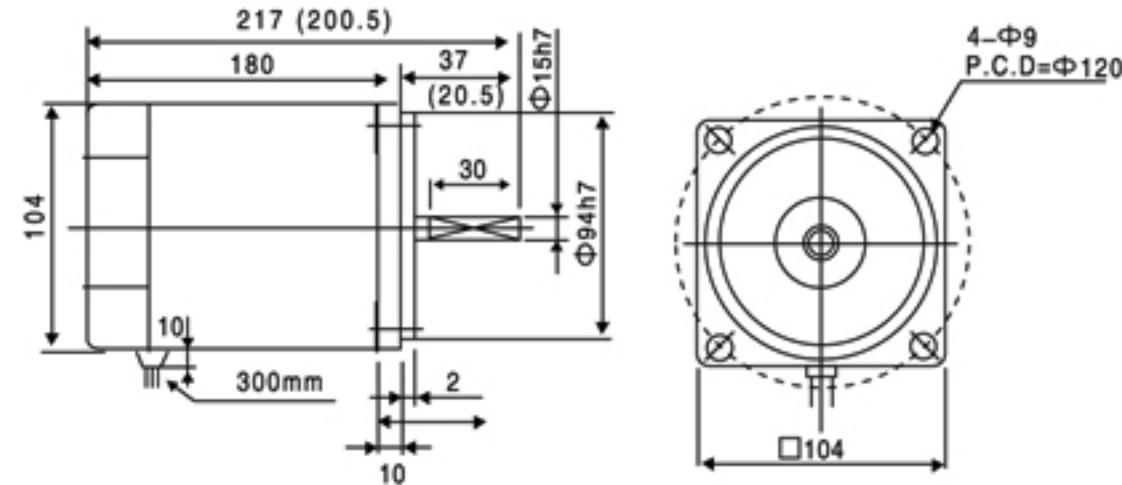
6GU□

SGU – 3~180KB Weight 1.3kg



MOTOR

6I(R)K140GU-(A/C/S3S)F 6IK140RA-A(C)F 6IK140RA-A(C)F 6IK140RGU-A(C)F

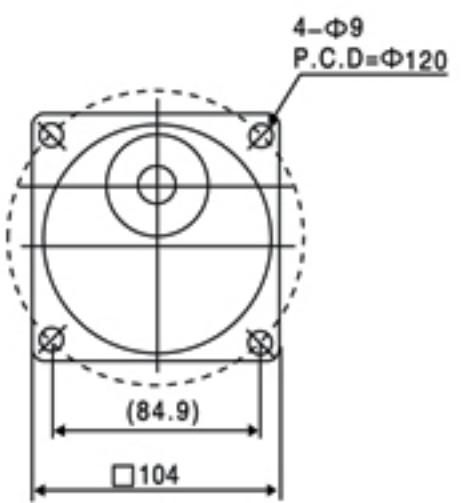
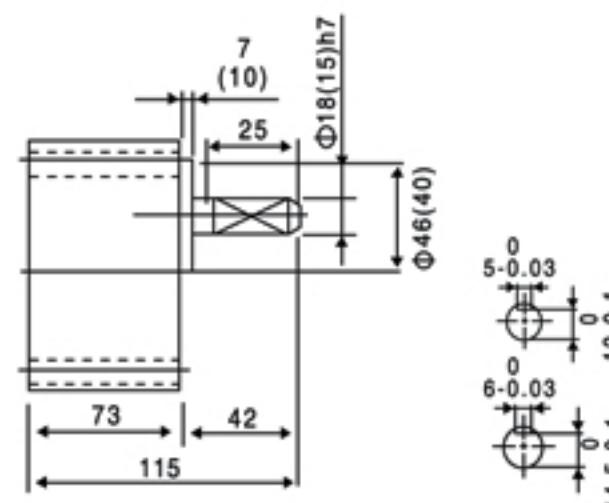


()Numbers Shown the dimension of the pinion shaft.

GEAR HEAD

6GU□

6GU – 3~180KB Weight 1.4kg



LOAD PERMISSIBLE WITH SPEED REDUCER

	500	416	300	250	200	150	120	100	83	75	60	50	40	37.5	30	25	20	16.7	15	12.5	10	8.3
Reduction ratio	3	3.6	5	6	7.5	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180
Permissible load	120W kg.cm	15	21	30	36	45	60	75	90	108	120	150	180	216	240	250	250	250	250	250	250	250
	140W kg.cm	25	33	42	52	62	83	96	115	139	162	190	230	238	247	255	255	255	255	255	255	255

Speed figures are based on synchronous speed, The actual output speed, under rated torque conditions, is about 2~20% less than synchronous speed.

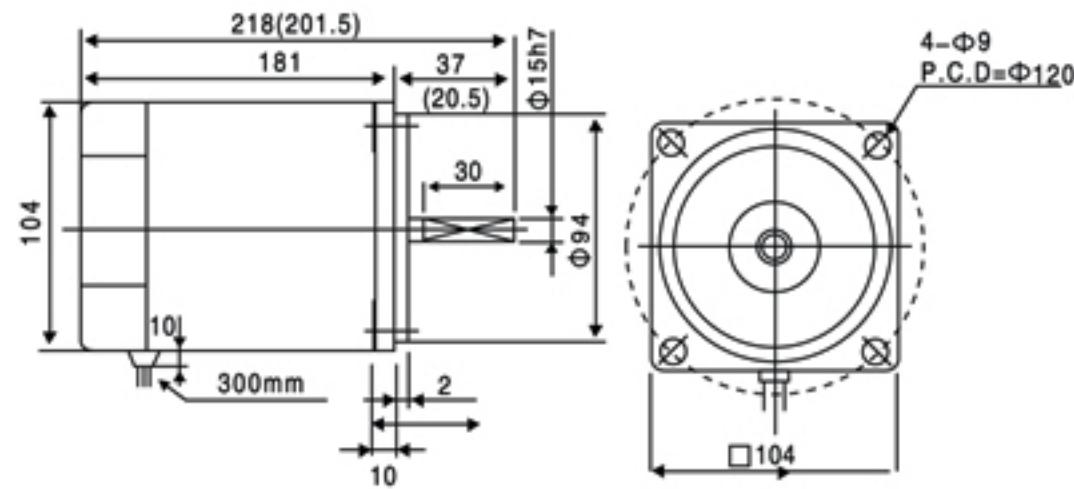
180W/200W INDUCTION MOTOR (K SERIES SINGLE PHASE 110V 220V / THREE PHASE 220V 380V)

SPECIFICATIONS

Type	(W) Power	(V) Voltage	(Hz) Frequency	(A) Current	(Kg.cm) Starting torque	(Kg.cm) Rated torque	(rpm) Rated Speed	Rated time	(μF) Capacitor
6IK180GU-AF	180	1φ 110	50/60	3.0	9.8	12.5	1350/1550	Continue	40/250V
6I(R)K180GU-CF	180	1φ 220	50/60	1.6	9.8	12.5	1350/1550	Continue	10/450V
6IK180GU-S ₃ (S)F	180	3φ 380(220)	50/60	0.8(1.38)	26	12	1350/1550	Continue	-
6IK200GU-AF	200	1φ 110	50/60	3.2	10.2	13.5	1350/1550	Continue	40/250V
6I(R)K200GU-CF	200	1φ 220	50/60	1.7	10.2	13.5	1350/1550	Continue	10/450V
6IK200GU-S ₃ (S)F	200	3φ 380(220)	50/60	0.85(1.5)	27	13	1350/1550	Continue	-

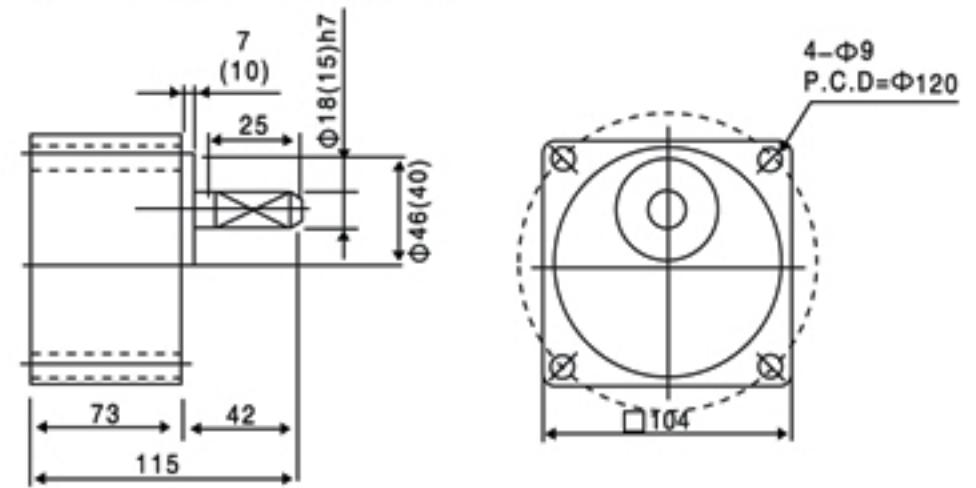
MOTOR

6I(R)K180GU-(A/C/S₃S)F 6IK180RA-A(C)F 6IK180RA-A(C)F 6IK180RGU-A(C)F



GEAR HEAD 6GU□

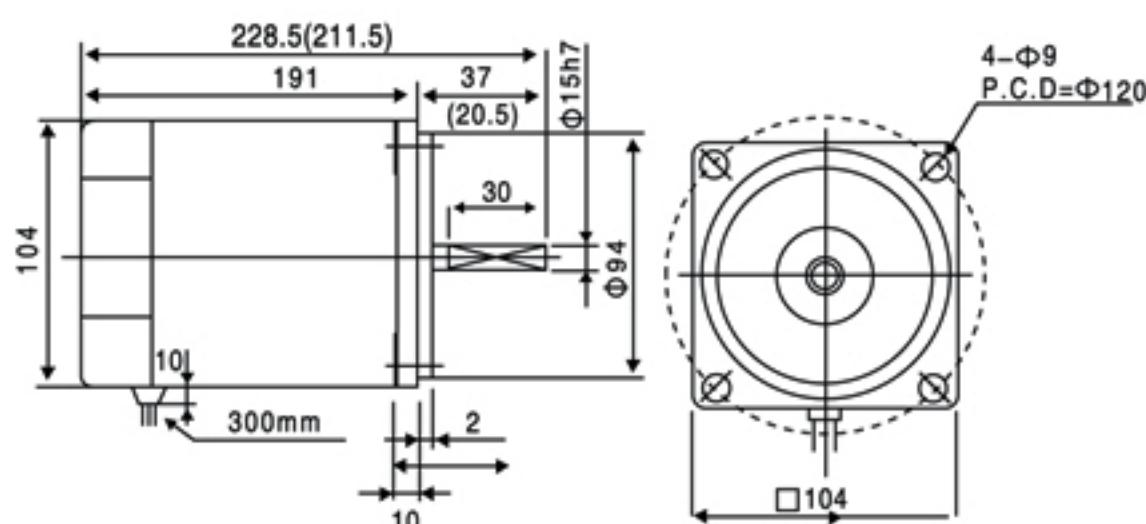
6GU - 3~180KB Weight 2.2kg



()Numbers Show the dimension of the pinion shaft.

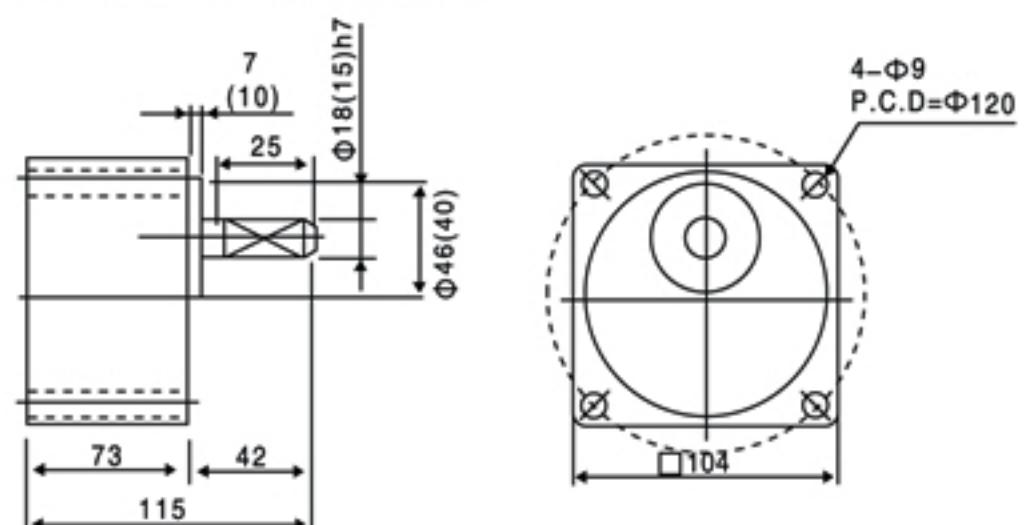
MOTOR

6I(R)K200GU-(A/C/S₃S)F 6IK200A-A(C)F 6IK200RA-A(C)F 6IK200RGU-A(C)F



GEAR HEAD 6GU□

6GU - 3~180KB Weight 2.2kg



()Numbers Show the dimension of the pinion shaft.

LOAD PERMISSIBLE WITH SPEED REDUCER

		500	416	300	250	200	150	120	100	83	75	60	50	40	37.5	30	25	20	16.7	15	12.5	10	8.3
Reduction ratio		3	3.6	5	6	7.5	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180
Permissible load	180W kg.cm	28	38	47	57	68	88	100	120	144	167	196	235	243	252	260	260	260	260	260	260	260	260
	200W kg.cm	31	45	52	60	73	90	105	125	148	173	200	238	246	260	270	270	270	270	270	270	270	270

Speed figures are based on synchronous speed. The actual output speed, under rated torque conditions, is about 2~20% less than synchronous speed.

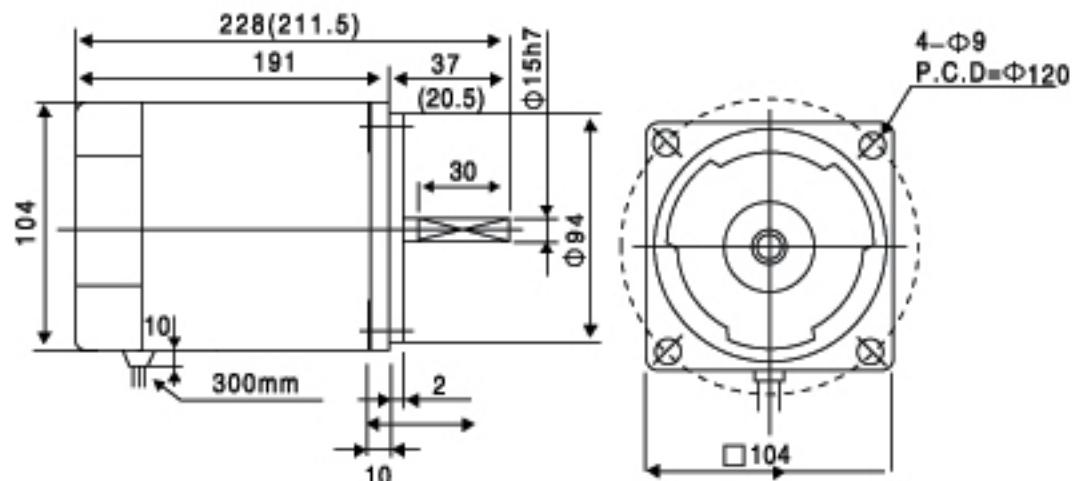
250W INDUCTION MOTOR (K SERIES SINGLE PHASE 110V 220V / THREE PHASE 220V 380V)

SPECIFICATIONS

Type	(W) Power	(V) Voltage	(Hz) Frequency	(A) Current	(Kg.cm) Starting torque	(Kg.cm) Rated torque	(rpm) Rated Speed	Rated time	(μF) Capacitor
6IK250GU-AF	250	1φ 110	50/60	3.5	14	17.8	1350/1550	Continue	50/250V
6I(R)K250GU-CF	250	1φ 220	50/60	1.8	14	17.8	1350/1550	Continue	14/450V
6IK250GU-S ₃ (S)F	250	3φ 380(220)	50/60	0.85(1.5)	40	17.8	1350/1550	Continue	-

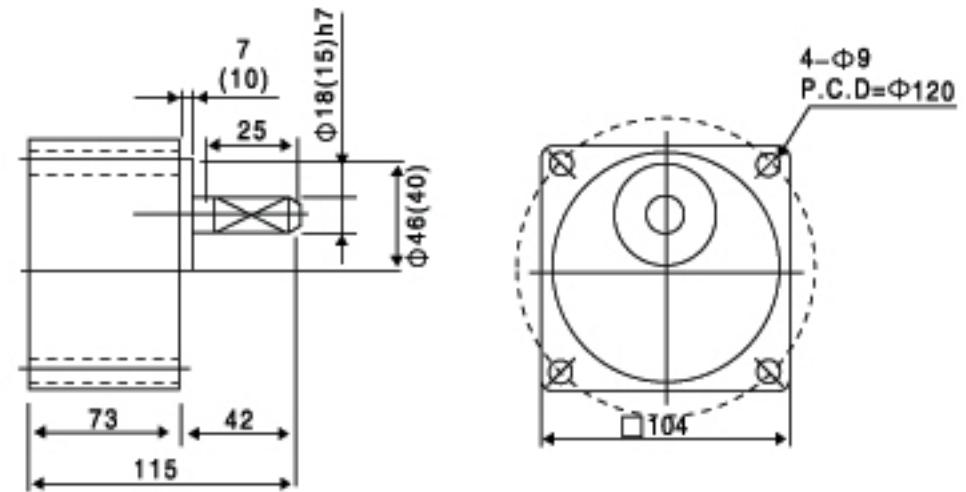
MOTOR

6IK250GU-A(C)F 6IK250A-A(C)F 6IK250RA-A(C)F 6IK250RGU-A(C)F



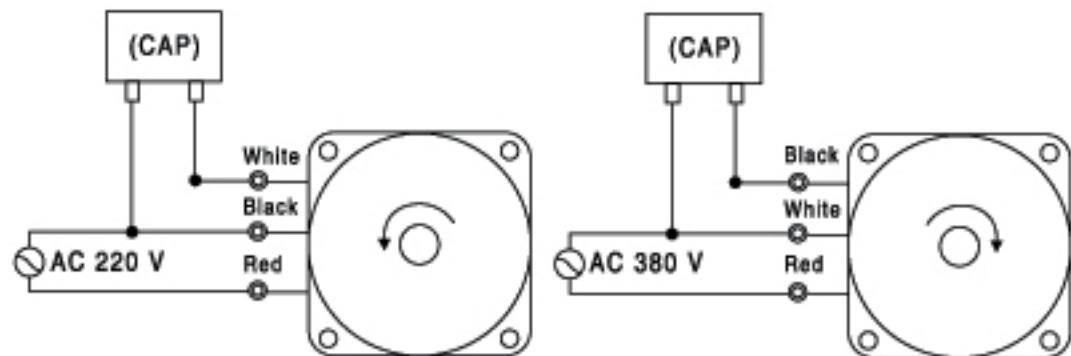
GEAR HEAD 6GU□

6GU – 3~180K L=73 2.2kg

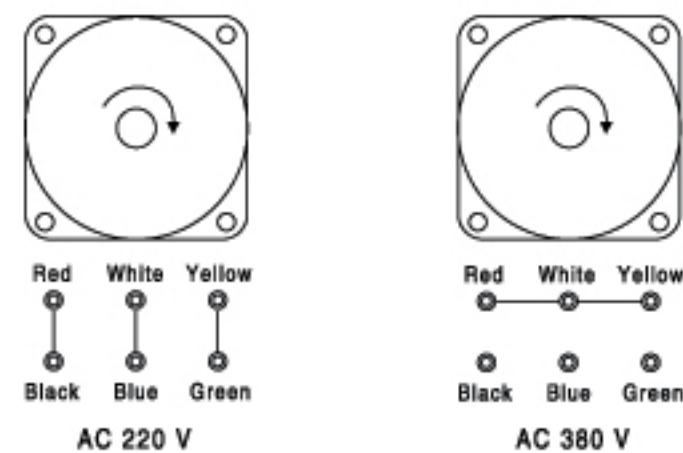


()Numbers Shown the dimension of the pinion shaft.

WIRE DIAGRAM Single Phase



Three Phase Diagram Connection



()Numbers Shown CW /CCW Direction

LOAD PERMISSIBLE WITH SPEED REDUCER

r/min	500	416	300	250	200	150	120	100	83	75	60	50	40	37.5	30	25	20	16.7	15	12.5	10	8.3	
Reduction ratio	3	3.6	5	6	7.5	10	12.5	15	18	20	25	30	36	40	50	60	75	90	100	120	150	180	
Permissible load	250W	kg.cm	37	54	62	72	87	108	126	150	177	207	240	285	295	312	324	324	324	324	324	324	324

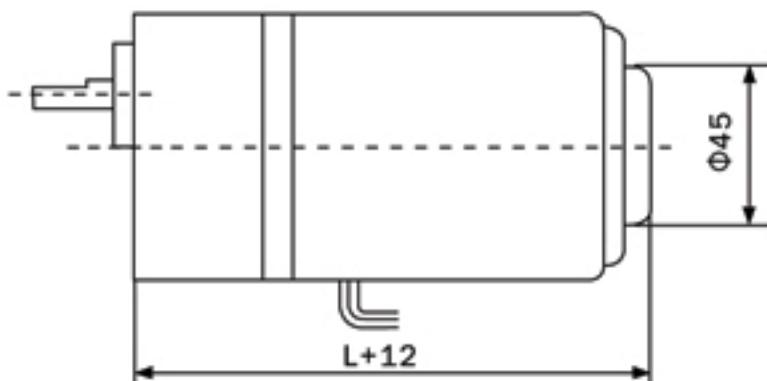
Speed figures are based on synchronous speed. The actual output speed, under rated torque conditions, is about 2~20% less than synchronous speed.

SPECIFICATIONS VARIABLE SPEED CONTROL MOTOR

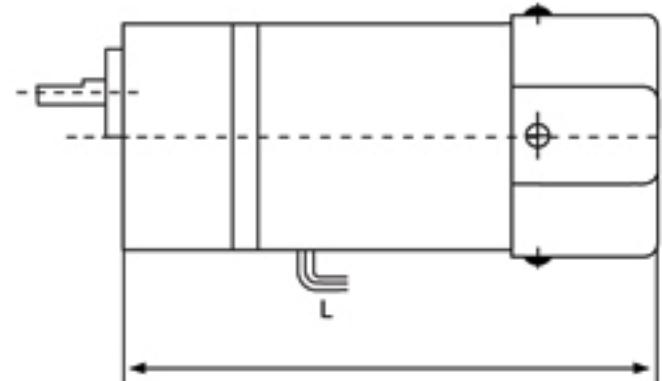
Type	(W) Power	(V) Voltage	(Hz) Frequency	(A) Current	(Kg.cm) Starting torque	(Kg.cm) Rated torque	(rpm) Rated Speed	Rated time	(μF) Capacitor
2IK6RGN-A	6	1φ 110	50/60	0.25	0.42	0.42	1250/1550	Continue	3/250V
2IK6RGN-C	6	1φ 220	50/60	0.13	0.42	0.42	1250/1550	Continue	0.8/450V
3IK15RGN-A	15	1φ 110	50/60	1.31	0.95	1.18	1250/1550	Continue	5/250V
3IK15RGN-C	15	1φ 220	50/60	0.16	0.95	1.15	1250/1550	Continue	1.2/450V
4IK25RGN-A	25	1φ 110	50/60	0.52	1.5	2.05	1350/1550	Continue	8/250V
4IK25RGN-C	25	1φ 220	50/60	0.25	1.5	2.05	1350/1550	Continue	2/450V
5IK40RGN-A	40	1φ 110	50/60	0.65	2.4	2.9	1350/1550	Continue	12/250V
5IK40RGN-C	40	1φ 220	50/60	0.33	2.4	2.9	1350/1550	Continue	3/450V
5IK60RGN-AF	60	1φ 110	50/60	1.12	3.5	4.5	1350/1550	Continue	15/250V
5IK60RGN-CF	60	1φ 220	50/60	0.52	3.5	4.5	1350/1550	Continue	4/250V
5IK90RGU-AF	90	1φ 110	50/60	1.5	6	6.7	1350/1550	Continue	24/250V
5IK90RGU-CF	90	1φ 220	50/60	0.72	6	6.7	1350/1550	Continue	5.5/450V
5IK120RGU-AF	120	1φ 110	50/60	1.95	8	9.8	1350/1550	Continue	30/250V
5IK120RGU-CF	120	1φ 220	50/60	0.98	8	9.8	1350/1550	Continue	8/450V
6IK140RGU-AF	140	1φ 110	50/60	2.6	8.5	11	1350/1550	Continue	30/250V
6IK140RGU-CF	140	1φ 220	50/60	1.4	8.5	11	1350/1550	Continue	8/450V
6IK180RGU-AF	180	1φ 110	50/60	3.0	9.8	12.5	1350/1550	Continue	40/250V
6IK180RGU-CF	180	1φ 220	50/60	1.6	9.8	12.5	1350/1550	Continue	10/450V
6IK200RGU-AF	200	1φ 110	50/60	3.2	10.2	13.5	1350/1550	Continue	40/250V
6IK200RGU-CF	200	1φ 220	50/60	1.7	10.2	13.5	1350/1550	Continue	10/450V
6IK250RGU-AF	250	1φ 220	50/60	3.5	14	17.8	1350/1550	Continue	50/250V
6IK250RGU-CF	250	1φ 220	50/60	1.8	14	17.8	1350/1550	Continue	14/450V

External Dimension

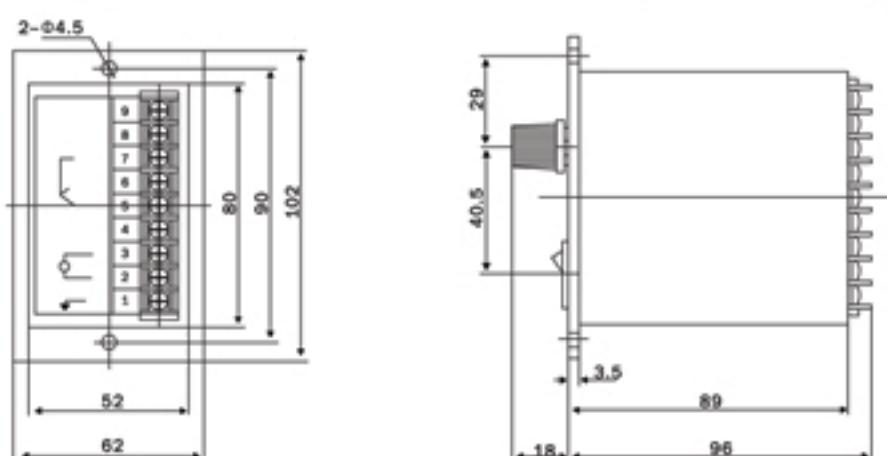
Motor : 4W.6W.10W.15W.25W.40W



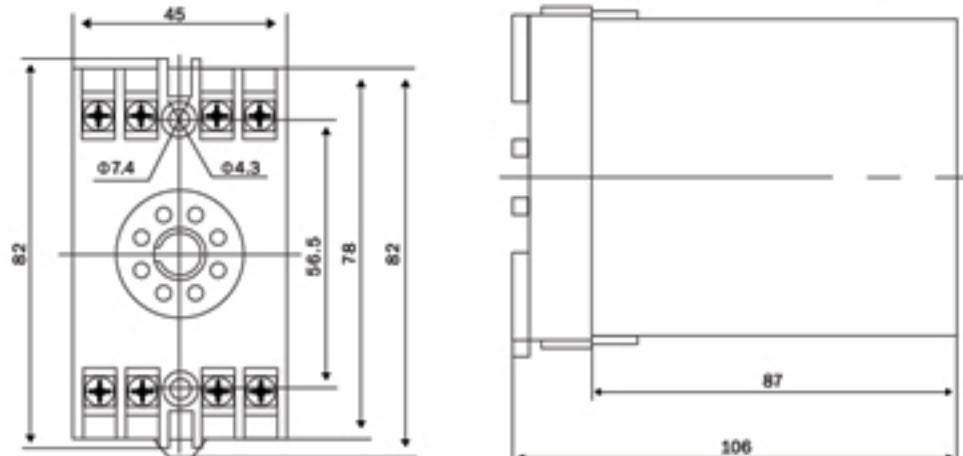
Motor : 60W.90W.120W.140W.180W



US/UX/UM UNIT TYPE 52 (6-250W)



SS SEPERATE TYPE 52 (6-250W)



BRAKE MOTOR

Mechanical damper

6W, 15W, 25W, 40W, 60W, 90W, 120W, 140W

Features: 1. Simple structure

2. Cp, omg to a stop within 0.5s after being deenergize

Suitable Motors: 6W, 15W, 25W, 40W, 60W, 90W, 120W, 140W

Note: We can change damping status at the request of customers, but this will probably cause variation in starting torque.

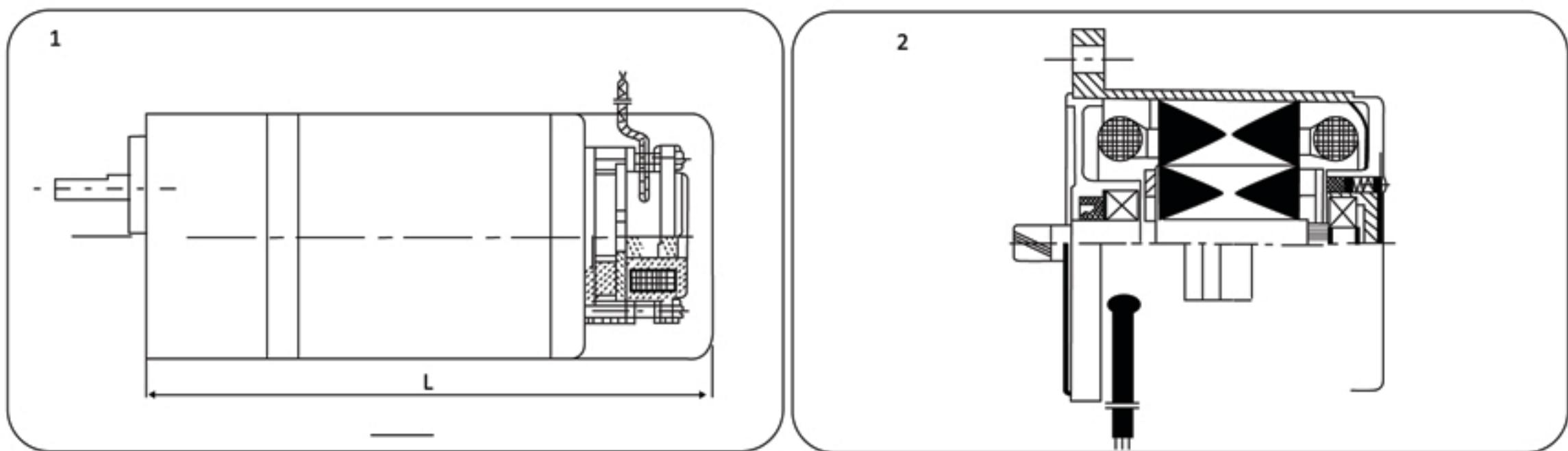
Electromagnetic brake

Features : 1. Simple structure

2. Having enough braking torque

Suitable Motors: 15 ~ 200W

Drawing Picture :



External Dimension

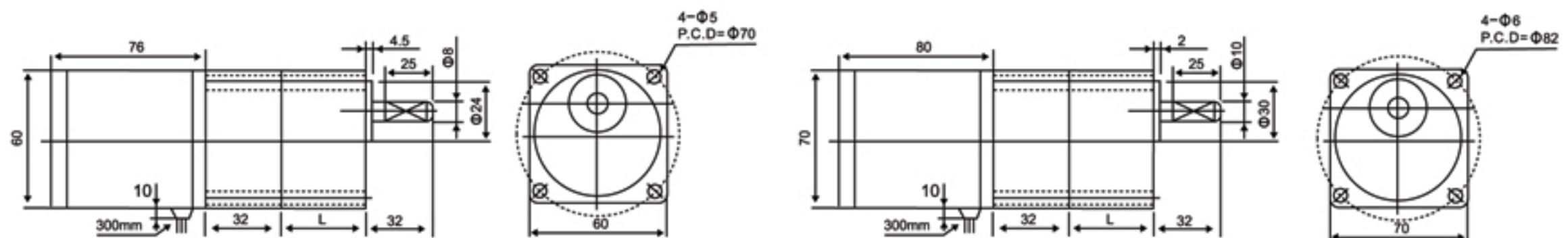
Type	Reduction Ratio	L (mm)	Type	Reduction Ratio	L (mm)
IK(RK)70-15	1:3~1:18	157	IK(RK)90-40	1:20~1:180	210
IK(RK)70-15	1:20~1:180	167	IK(RK)90-60		245
IK(RK)80-25	1:3~1:18	164	IK(RK)90-90	1:3~1:180	265
IK(RK)80-40		178	IK(RK)90-120		265
IK(RK)80-25	1:20~1:180	176	IK104-140		298
IK(RK)80-40		190	IK104-180		208
IK(RK)90-40	1:3~1:18	192	IK104-200		298
IK(RK)90-60		227			

INTERMEDIATE MIDDLE GEARBOX (10X)

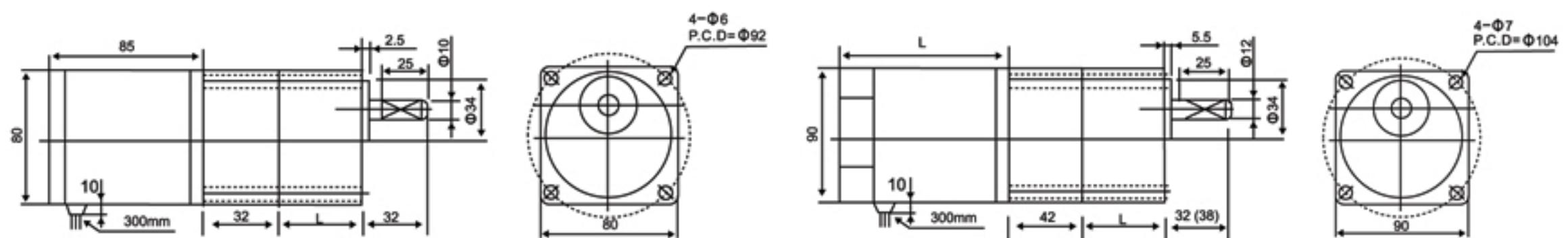
INTERMEDIATE GEARBOX 2GN INTERMEDIATE GEARBOX 3GN

RATIO 1 : 100 ~ 1 : 1800

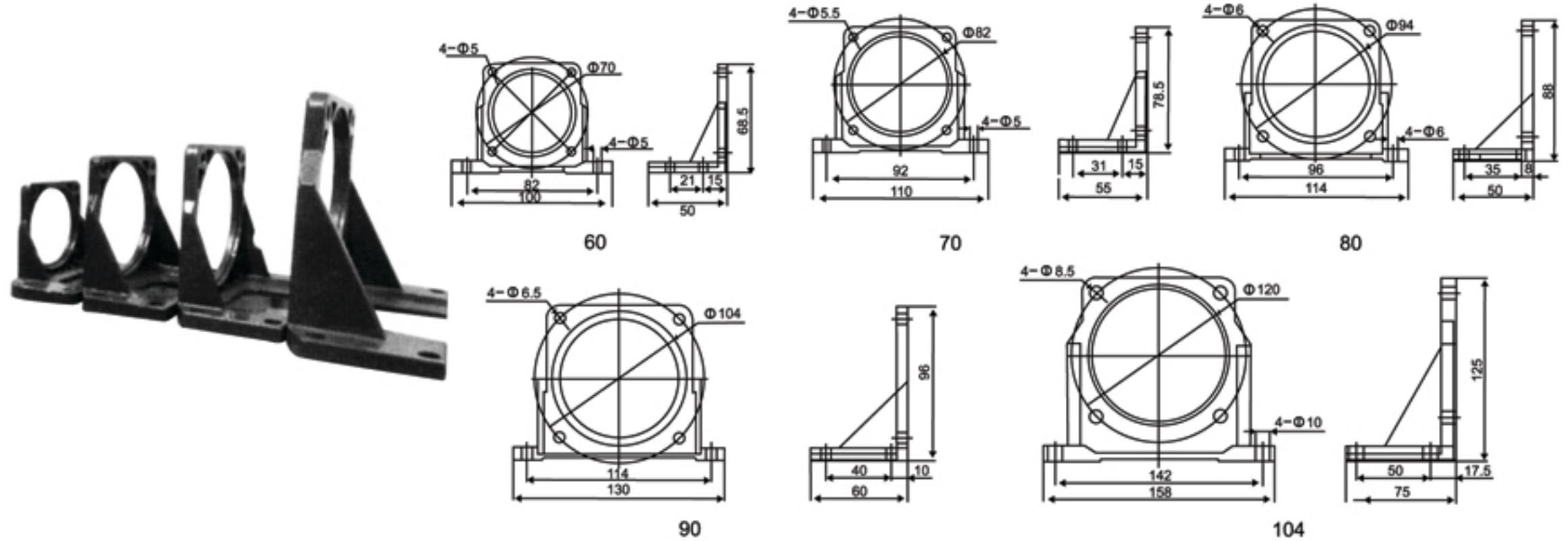
2GN - 3GN - 4GN - 5GN - 5GU

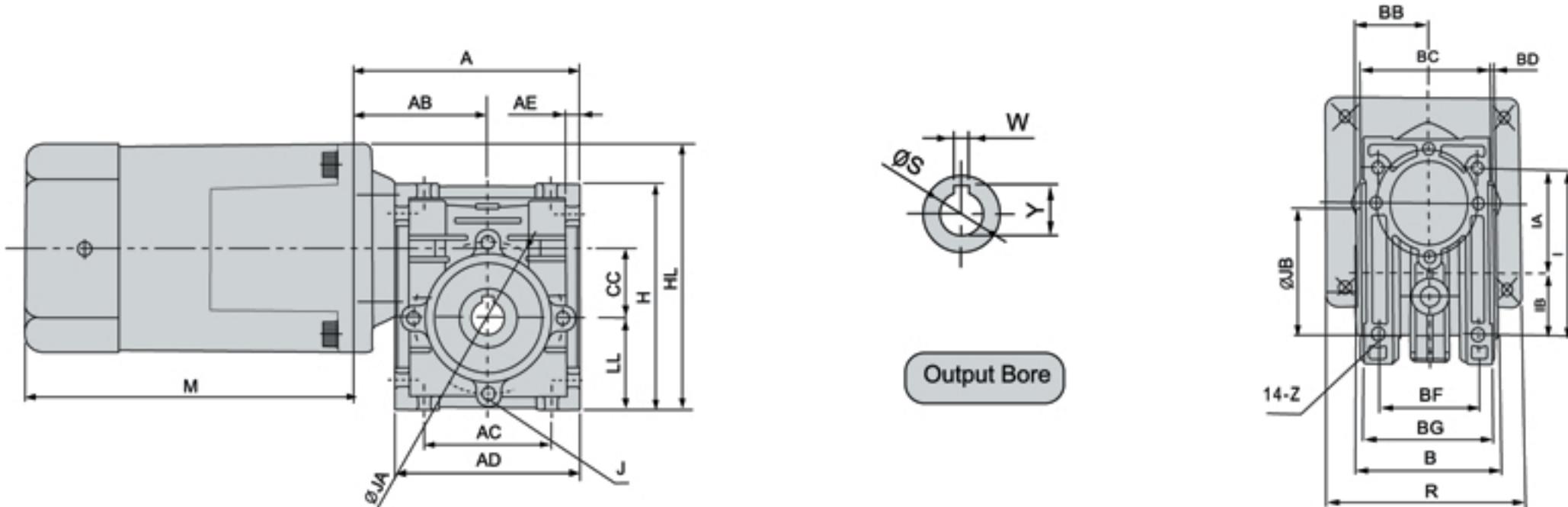


INTERMEDIATE GEARBOX 4GN INTERMEDIATE GEARBOX 5GN 5GU



MOTOR AU MOUNTING L - TYPE BRACKETS (OPTIONAL)

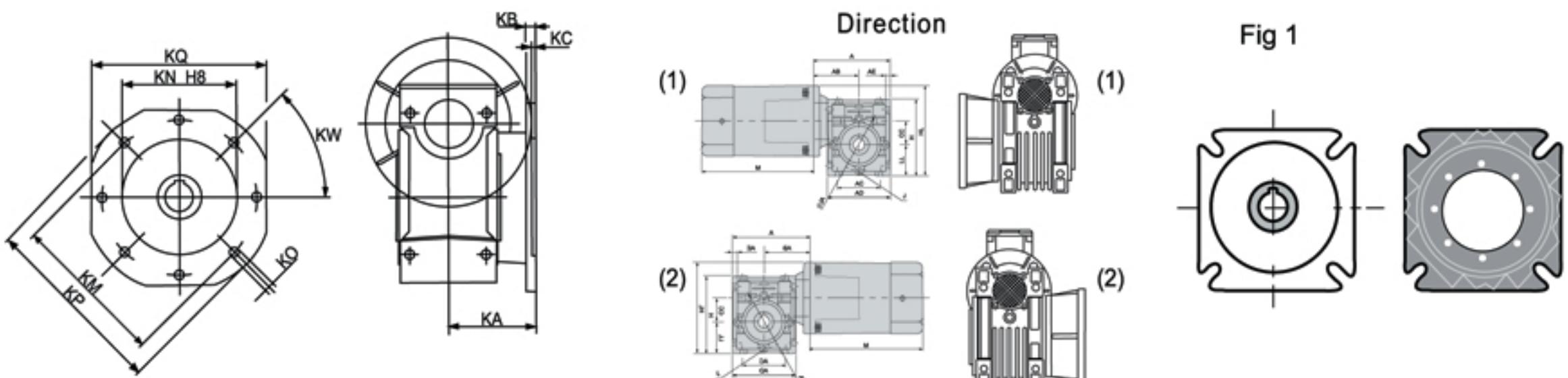




RV In combination with round-shaft motor

Frame	Ratio	Dimension (mm)																			Output Shaft	Weight KG				
		A	AB	AC	AD	AE	B	BB	BC	BD	BF	BG	CC	LL	H	HL	I	IA	IB	Z	W	S	Y	JA	J	
025	7.5-60	80	48	45	71	5	50	22.5	50	2	34	42	25	35	83	106	58	33.5	22.5	M6	4	11H8	12.8	55	6.5	0.7
030	7.5-80	98	58	55	80	6	65	32.5	60	2	45	58	30	40	98	115	72	45	27	M6	5	14	16.3	65	8-M6	1.31
040	7.5-100	123	72	70	102	7.5	90	45	80	2	60	72	40	50	122	167	90	55	35	M8	8	18	22.8	75	12-M6	2.6
050	7.5-100	147	87	80	120	7	150	100	94	3	70	85	50	60	145	163	105	65	40	M10	8	25	28.3	85	12-M8	4.4

Weight not include motor



RV with output flange

Frame Size	025	030	040	050	063	073	090	110	130	150	
FA	KA	45	54.5	67	90	82	111	111	131	140	155
	KB	6	6	7	9	10	13	13	15	15	15
	KC	3	4	4	5	6	6	6	6	6	6
	KN	40	50	60	70	115	130	152	170	180	180
	KM	55	68	75	85	150	165	175	230	255	255
	KO	6.5(N° 4)	6.5(N° 4)	9(N° 4)	11(N° 4)	11(N° 4)	14(N° 4)	14(N° 4)	14(N° 8)	16(N° 8)	16(N° 8)
	KP	75	80	110	125	180	200	210	280	320	320
	KQ	70	70	95	110	142	170	200	260	290	290
	KW	45°	45°	45°	45°	45°	45°	45°	22.5°	22.5°	22.5°
	Fig.	1	1	1	1	1	1	1	1	1	1

SOLUTION AND REASONS FOR THE GENERAL FAULTS OF REDUCTION GEARS

Fault description	Reasons	Solutions
Overheat	<ul style="list-style-type: none"> ◆ Overheat ◆ Lash load big or reciprocate to start ◆ Motor exterior greasy dirt too much ◆ Voltage low load operation ◆ Improper connection between driving shaft and the transmission device 	<ul style="list-style-type: none"> ◆ Adjust to proper loading ◆ Use larger reduction gears ◆ Wash motor exterior ◆ Adjustment is to the normal voltage ◆ Adjust to proper position
Noise	<ul style="list-style-type: none"> ◆ Overload caused by gear wear ◆ Bearing damage or exercise gap ◆ Motor with foreign objects ◆ Lubricant oil shortage or deterioration ◆ Improper connection between driving shaft and the transmission device ◆ Bolt loose ◆ Fixed bad transmission device 	<ul style="list-style-type: none"> ◆ Adjust to proper loading of use larger reduction gears ◆ Replace bearing ◆ Take out foreign object ◆ Fill in adequate lubricant grease/oil as indication ◆ Adjust to proper position ◆ Tighten bolt ◆ Fix transmission device
Oil leakage	<ul style="list-style-type: none"> ◆ Oil seal damaged ◆ Too much oil ◆ deceleration machine screw pine is taken off ◆ Outside shell rupture 	<ul style="list-style-type: none"> ◆ Replace oil seal ◆ Fill in adequate lubricant oil as indication ◆ Tighten screw ◆ Replace shell
Driving shaft cannot rotate	<ul style="list-style-type: none"> ◆ Overload ◆ Large impact loading ◆ Motor out of order of incorrect wiring ◆ Power supply cord is taken off ◆ Single-phase starts capacity to damage 	<ul style="list-style-type: none"> ◆ Adjust to proper loading ◆ Use larger reduction gears ◆ Restore motor, join wiring correctly ◆ Join power supply cord ◆ Change capacitor

NOTES: The above items are general fault descriptions, In case of other kinds of faults, please contact With Us to obtain the most correct services

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