

## What you can expect from us

As a customer of KOCO DC-MOTION you can expect professional and courteous service, high quality competitive products, and timely delivery. We work with our customers as a partner and help them achieve their desired outcome within the announced budget. From the very beginning we strive to assist customers in selecting which of our products is best suited for their application. For many applications we frequently develop customized components (motors, gearboxes, encoders, etc).

PLEASE CONTACT US and take advantage of our many years of experience in the development and production of a broad range of electric motors and related drive system components. Experience together with our customers the realization of a solution to your drive system/motion control requirement. Visit our website [www.kocodcmotion.com](http://www.kocodcmotion.com) for more information.

The synergy of KOCO DC-MOTION with its manufacturing parent entities enables us to offer a broad product line with strong production capacity.

## KOCO MOTION GmbH, partner in development

Our team of engineers, scientists, and technicians is at your service to assist with the solution to your drive system/motion control problem. Together, we agree on requirements and specifications and ensure compliance by means of close inspections. We maintain our own test/inspection stations and develop a suitable Quality Control procedure for your application.



**ELECTRICAL DRIVE TECHNOLOGY**  
development | production | sales



## BEST SERVICE FROM CALIFORNIA

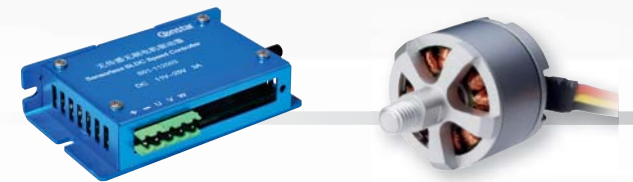
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...Intelligence in motion

...Intelligence in motion

## Who we are

KOCO DC-MOTION, Inc. defines itself as a motion systems house offering top quality drive solutions to the customer, utilizing our DC Motor and Control Technologies.

The products required for our customer's applications are manufactured by our parent companies, CONSTAR MICROMOTOR CO, Ltd. of China and KOCO MOTION, GmbH of Germany.

The company philosophy - „We are only satisfied when the optimum solution has been found for the customer“ - is characteristic of the KOCO DC-MOTION team work ethic.

KOCO DC-MOTION is a problem solver, a partner who is enthusiastic about technology and who is already at home in the future.



▲▼ Constar micromotor (Chongqing) Co., Ltd  
Located in Fuling District, Chongqing, China



## PRODUCT PROFILE

### PRECISION DC CORELESS MOTOR

| Diameter  | Nominal voltage | Nominal torque | Nominal speed    |
|-----------|-----------------|----------------|------------------|
| 6 ~ 32 mm | 3 ~ 36 V        | 0.1 ~ 86 mNm   | 2200 ~ 17450 rpm |

**Application:** precision drives in medical, health care, automobile and industrial automation fields



### BRUSHLESS DC MOTOR

|                 | Inner rotor series | Outer rotor series |
|-----------------|--------------------|--------------------|
| Diameter        | 12 ~ 40 mm         | 13 ~ 87 mm         |
| Nominal voltage | 3.7 ~ 48 V         | 3.7 ~ 48 V         |
| Nominal torque  | 0.8 ~ 450 mNm      | 0.8 ~ 6000 mNm     |
| Nominal speed   | 6000 ~ 45000rpm    | 1200 ~ 30000 rpm   |
| KV value        | 500 ~ 10000 rpm/V  | 500 ~ 10500 rpm/V  |

**Application:** UAV, medical equipment, industrial equipment, electrical tools and mini household appliances



### PRECISION GEARMOTOR

| Diameter  | Nominal voltage | Reduction ratio | Max. cont. torque | Peak torque   |
|-----------|-----------------|-----------------|-------------------|---------------|
| 6 ~ 28 mm | 1.5 ~ 18 V      | 3 ~ 4096        | 20 mNm ~ 1 Nm     | 20 mNm ~ 2 Nm |

**Application:** medical equipment, precision instrument, industrial equipment, security equipment, audio and visual products, high-end toys, personal health care products, etc.



### PRECISION SERVO MOTOR

| Diameter  | Nominal voltage | Nominal torque | Nominal speed | Counts per turn |
|-----------|-----------------|----------------|---------------|-----------------|
| 8 ~ 87 mm | 6 ~ 24 V        | 50 mNm ~ 4 Nm  | 25 ~ 1000 rpm | 2 ~ 1024 cpt    |

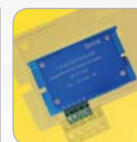
**Application:** precision control fields such as medical instruments, industrial robots, etc.



### ELECTRONIC SPEED CONTROLLER

|                    | External ESC for BLDCM            | Internal ESC for BLDCM | ESC for multi-rotor | Servo driver |
|--------------------|-----------------------------------|------------------------|---------------------|--------------|
| Input voltage      | 4 ~ 16 V<br>6 ~ 24 V<br>14 ~ 38 V | 6 ~ 12 V<br>12 ~ 28 V  | 2 ~ 6 s<br>Lipo     | 9 ~ 24 V     |
| Max. cont. current | 5 A                               | 0.4 A / 3 A            | 20 A / 30 A         | 5 A          |

**Application:** multi-rotor drones, CPAP, pumps, robots, etc.



### DC CORELESS MOTOR

|                  | Driving series   | Vibrating series |
|------------------|------------------|------------------|
| Diameter         | 4 ~ 22 mm        | 4 ~ 12 mm        |
| Nominal voltage  | 1.5 ~ 12 V       | 1.3 ~ 5 V        |
| Nominal torque   | 0.03 ~ 3.5 mNm   | --               |
| Nominal speed    | 2720 ~ 55000 rpm | 6500 ~ 20000 rpm |
| Starting voltage | --               | 0.8 ~ 2.5 V      |

**Application:** Driving series: mini UAV, remote control toys, mini house hold appliances, etc. Vibrating series: wearable devices, mobile phones, tablet PC and health care equipment



### FLAT DC MOTOR

|                  | Driving series   | Vibrating series   |
|------------------|------------------|--------------------|
| Diameter         | 20 mm            | 8 mm, 10 mm, 12 mm |
| Nominal voltage  | 3 V              | 3 V                |
| Nominal torque   | 0.3 mNm          | --                 |
| Nominal speed    | 6850 ~ 17000 rpm | 9000 ~ 13500 rpm   |
| Starting voltage | --               | 1.5 ~ 2.3 V        |

**Application:** Driving series: mini electronic products and toys Vibrating series: wearable devices, mobile phones, tablet PCs and health care equipment



### DC CORE MOTOR

| Diameter  | Nominal voltage | Nominal torque | Nominal speed    |
|-----------|-----------------|----------------|------------------|
| 8 ~ 28 mm | 1.5 ~ 12 V      | 0.2 ~ 55 mNm   | 3000 ~ 40000 rpm |

**Application:** Driving series: security equipment, mini electronic products, aircraft, personal cares products and portable tools Vibrating series: communication devices, health care equipment



### MINI STEP MOTOR

| Diameter            | Nominal voltage | Step angle      |
|---------------------|-----------------|-----------------|
| 10 mm, 15 mm, 35 mm | 3 V, 5 V, 24 V  | 9° / 18°, 3,75° |

**Application:** security systems, office automation systems, medical equipment, mini household appliances, and toys



### SONIC MOTOR

| Diameter     | Nominal voltage | Operating frequency |
|--------------|-----------------|---------------------|
| 18 mm, 20 mm | 3.6 ~ 3.7 V     | 220 ~ 330 Hz        |

**Application:** electric toothbrushes and other products

