

...Intelligence in motion



Development | Production | Sales



WE MOVE INDUSTRIES.

Wherever movement needs to be initiated, electric drives can generate it. And usually the origin of any movement is the rotational movement of an electric motor. Therefore, KOCO MOTION drives can be found in many different applications and industries.









MEDICAL

INDUSTRY AUTOMATION

MECHANICAL ENGINEERING





BATTERY TOOLS

LOCKING TECHNOLOGY

RENEWABLE ENERGIES

HIGH CUSTOMER SATISFACTION IS OUR MOTIVATION

From tailor-made drive solutions in small series to complex projects with large quantities - our KOCO MOTION team is ready to provide our customers with advice and support.

We collaborate with our customers to coordinate requirements and specifications and ensure compliance with those through close inspections. On-time delivery and tested quality are always our claim and are also proven by certifications according to DIN EN ISO 9001 and DIN EN ISO 14001.

PERSONAL. ENVIRONMENTALLY FRIENDLY. AND WITH DRIVE.

Our employees are our greatest asset. Their motivation is not only based on good relationships with each other and with KOCO MOTION, but also lies in the opportunity to fully contribute their skills and achieve our company goals in an individual wav.

We see ourselves as part of the environment and therefore treat the scarce natural resources we are given carefully. We actively look for ways to keep and improve our actions and behavior in an environmentally friendly manner.

We are KOCO MOTION

...Intelligence in motion

We are only satisfied when the optimal solution has been found for our customers.

As a system house, we always offer our customers the best drive solution and can rely on a global network of motor and control technologies. We implement our customers' projects in a highly professional and extremely flexible manner in partnership with our customers. Our aim is always to achieve the highest quality within the agreed budget.

We draw on years of experience in the development and production of electric motors and respond individually to the wishes and ideas of our customers in project consulting. For us, the focus is on the personal relationship with customers, employees and suppliers. We understand our customers' needs exactly, achieve a high level of customer satisfaction and are THE partner for our customers when it comes to drives.

NETWORKED WORLDWIDE.

Our strength also lies in the long-term partnerships with our suppliers. We are globally networked, rely on a well-coordinated logistics chain and can therefore ensure efficient processes. Our generous storage capacities minimize transport times and ensure safe and timely deliveries to our customers.









TECHNOLOGY



<u></u> SMART HOME



- Industry automation
- Medical technology
- Valves
- Analytics

- Agricultural technology Entertainment and
- household electronics

Multi-axis systems

Multislave Interfaces to

Gastronomy and Vending

OPTIONS

- Galvanic isolation
- Transmissions
- Hollow shaft
- Linear actuator
- Protection up to IP 65
- Brake resistance



KannMOTION

TAILOR-CUT. INDIVIDUAL DRIVES.

KannMOTION PLATTFORM

According to the modular principle, each drive is perfectly tailored to the respective customer requirements. Functions, displays or controls as well as additional peripheral devices are easily added - just as the application requires.

This added value is accompanied by a cost reduction at the same time, because only what the customer application actually needs is integrated. Furthermore, the susceptibility to errors and repairs is minimized and trouble-free operation is virtually guaranteed. This saves money, space and time in the medium and long term.

TECHNOLOGIES

- DC motors
- Stepper motors
- Linear actuators

ADVANTAGES

- Customized, individual drive solution
- Space, time and cost saving
- Integrated or external solution

KannMOTION MANAGER

Programming is child's play with the KannMOTION Manager. Commands can be easily inserted into the editor using drag'n'drop. After a command is selected and the F1 key is pressed, a detailed description of the command is displayed.

Even beginners without programming knowledge and without expensive training can quickly and easily create individual sequences and sequence programs.

For advanced users, the KannMOTION Manager also offers the option of programming the motor in the C language.

With the cockpit of the KannMOTION Manager, simple control commands can be executed quickly.

Size (Nema)	Voltage max. (V)	Power max. (A)	Controller	Dimensions (mm)	Integrated / External	Interface
11 - 17	30	2,8	K11	28 x 28	integrated	RS232
17 - 23	36 - 48	3,0	K17	42 x 42	integrated	RS232; RS485; CANopen
	48	6,0	K23	56 x 56	integrated	RS485; CANopen
23 - 34	60	2,8	K08	stand alone	external	RS232
	60	6,0	K14	stand alone	external	RS232









Easy and quick to program

Closed-Loop

Absolute encoder single-turn

Linear actuators are used, among other things, for lifting, lowering, positioning and for opening and closing valves. Essentially anywhere linear motion is needed - in machines, devices and automation.

The trend is for small linear axes to replace pneumatic cylinders.

- Analyzer
- Robots

- Packaging machines Dosing systems
- Format adjuster Laser systems
- Bottling plants Medical technology



MOTOR VERSIONS

External (E)

The external nut on the spindle creates the linear motion. The nut must be secured against rotation.

Non-Captive (N)

The spindle is pushed through by the motor. The spindle nut is located in the motor.

ADVANTAGES

- Great strength, high resilience
- Long lifetime
- High positioning accuracy
- Simple control
- Low noise
- Compact, efficient and reliable
- Flexibly adaptable for a variety of areas of application e.g. with nut-spindle combinations:
- Cost-effective solutions with injection moldet nuts for trapezoidal spindles
- Versions with ball screw possible

Captive (C)

Electric cylinder; The linear movement is achieved by the push rod, which is already internally secured against rotation.

Captive (K)

The linear movement is achieved by the push rod, which is already internally secured against rotation.

Size (Nema)	Flange dimensions (mm)	Version trapezoidal spindle	Spindle pitch (mm/U)	Max. feed force (N) rec. load limit	Version ball screw spindle	Spindle pitch (mm/U)	Max. feed force (N) rec. load limit
6	14 × 14	(E), (N), (K)	0,609 - 8	15	(E)	1 - 2	15
8	20 x 20	(E), (N), (K)	0,609 - 8	140	(E)	1 - 2	45
11	28 x 28	(E), (N), (C), (K)	0,3175 - 10,16	140	(E)	1 - 10	140
14	35 x 35	(E), (N), (C), (K)	0,609 - 25,4	230	(E)	1 - 12	230
17	42 x 42	(E), (N), (C), (K)	0,609 - 25,4	230	(E)	1 - 12	230
23	56 x 56	(E), (N), (C), (K)	0,635 - 25,4	910	(E)	2 - 20	910
34	86 x 86	(E), (N)	2,54 - 25,4	2270	optional		



Linear actuators

GREAT POWERS. HIGH POSITIONING ACCURACY. LONG LIFETIME.

CUSTOM-SPECIFIC ADAPTATIONS

- Winding
- Torque
- Product labeling
- Insulation classes
- Lifetime

CUSTOM-SPECIFIC ATTACHMENT PARTS

- Motor mounts
- Injection molded parts
- Housing
- Encoder
- Brake



- Mechanical interfaces Part motor
- Step angle
- Environmental conditions
- - Magnets
 - Controller
 - Slide guides
 - Linear rails



MOTOR TECHNOLOGIES

- Permanent magnets
- Hybrid stepper motors

FUTHER OPTIONS

- Wires
- Connectors
- Temperature sensors
- Spindle shape
- Integrated controller
- Anti-backlash-nut

Stepper motors are essential for modern technologies. Their unique ability to rotate in fixed increments allows them to be used in a variety of applications. Stepper motors have a comparatively high torque as a direct drive and can be easily controlled. This precise control combined with its reliability and efficiency makes it the first choice in many high-tech applications.

- Medical technology
- Precision mechanics Printing technology
- Laboratory and analysis technology
- Optics

Robotics

ADVANTAGES

- Great powers
- High starting torque as a direct drive
- Precise positioning and repeatability of movement
- High holding torque
- Simple control
- Compact, robust design
- Long lifetime
- Flexible customizable





MOTOR VERSIONS

- Single or double shaft
- Motor length 1-4 or 5 stack
- Protection class IP 40 IP 67
- With plug or cable outlet

Size (Nema)	Dimensions	Holding torque	Full step angle	Phase currents bipolar
6	14 × 14	up to ca. 40 mNm	1,8	up to 0,3 A
8	20 x 20	up to ca. 30 mNm	1,8	up to 0,5 A
11	28 x 28	up to ca. 100 mNm	1,8	up to 1 A
14	35 x 35	up to ca. 120 mNm	0,9; 1,8	up to 1,5 A
17	42 x 42	up to ca. 800 mNm	0,9; 1,8; 3,0	up to 2,5 A
23	56 x 56	up to ca. 2 Nm	0,9; 1,8; 3,0	up to 3 A
24	60 x 60	up to ca. 3,5 Nm	1,2; 1,8; 3,0	up to 6 A
34	86 x 86	up to ca. 12 Nm	0,72; 1,2; 1,8; 3,0	up to 8 A
42	110 × 110	up to ca. 20 Nm	1,8	up to 6 A

Stepper motors

PRECISE POSITIONING. GREAT POWERS. SIMPLE CONTROL.

MOTOR TECHNOLOGIES

- Permanent magnet
- Hybrid stepper motor

HOLDING TORQUE

Up to 20 Nm

CUSTOM-SPECIFIC ADAPTATIONS

- Winding
- Torque
- Product labeling
- Environmental conditions Insulation classes

FURTHER OPTIONS

- Worm gear
- Magnets
- Brake

Gear

Gear boxes

Encoder

- Controller

Wires







- Step angle
- Lifetime
- Mechanical interfaces
- Parts motor

CUSTOM-SPECIFIC ATTACHMENT PARTS

- Connectors Temperature sensors Digital Hall-sensors
- Shaft geometry
- Integrated controller
- Hollow shaft

Brushed DC motors can be used universally due to their simple structure. Therefore, there are hardly any applications in which DC motors do not play a certain role.

- Pumps
- Locking systems
- Electric cylinders
- Modelling
- Valve actuators
- Window regulators Shading systems
- Entertainment and household devices
- Dosing systems



MOTOR VERSIONS

Input

- Wire harness / connectors
- Soldering pads
- Free wires
- Metal contacts

Bearings

- Slide bearing
- Ball bearing

- Encoder Magnet on shaft Hall-sensors
 - Optical
 - Magnetical

Commutation

Metal Carbon



- High efficiency and power density
- Ideal for battery operation
- Simple control via DC voltage and PWM
- Available from 4 mm diameter and in flat designs
- Gear boxes in many versions

Coil (Robot) Output D-Cut Winding on iron core Double-D-Cut (iron anchor) Pinion Cantilevered Round shaft (bell runner) ■ Flat (flat runner)

Gear boxes

- Spur gear Planetary gear
- Worm gear Angular gear





CUSTOM-SPECIFIC ADAPTATIONS

- Winding
- Torque
- Speed
- Product labeling

Insulation classes

Environmental conditions

Metal commutation

CUSTOM-SPECIFIC ATTACHMENT PARTS

- Motor mounts
- Injection molded parts
- Housing
- Spindle
- Gear
- Magnets

Gear boxes

Worm gear

Encoder

Brake





- Carbon brush commutation
- Lifetime
- Mechanical interfaces

FURTHER OPTIONS

- Wires
- Connectors
- Metal contacts
- Soldering pads
- Temperature sensors
- Shaft geometry

ADVANTAGES

(EMC properties) Silent operation

Good electromagnetic compatibility

Can be easily combined with encoders

Solutions for operating points

at high and low speeds

Long lifetime High efficiency

BLDC motors are used wherever the requirements for service life, interference suppression or noise are high and may not be met by brushed DC motors.

- Pumps
 - UAV / Drones

vehicles

- Autonomous guided
- LiDAR systems

Robots



BLDC motors

SILENT. EFFICIENT. LONG-LASTING.

CUSTOM-SPECIFIC ADAPTATIONS

- Winding
- Insulation classes Lifetime

Mechanical interfaces

Torque Speed

Product labeling

- Parts motor
- Environmental conditions

CUSTOM-SPECIFIC ATTACHMENT PARTS

- Motor mounts
- Injection molded parts
- Housing
- Spindle Gear

Gear boxes

Brake Worm gear

Encoders

- Magnets
- Controller

MOTOR VERSIONS

Input

- Wire harness / Connector
- Soldering pads
- Free wires
- Metal contacs

Rotor

- Inner runner
- Outer runner
- Frameless



- Encoder
 - Hall-sensors Optical Magnetical

Bearing

Slide bearing Ball bearing

Gear box Spur gear

- Planetary gear Worm gear
- Angular gear

Stator



Product class	Diameter flange (mm)	Voltage (V)	Rated torque (mNm)	Hall-sensors
Inner runner	Ø8 - Ø75	3 - 48	1 - 500	optional
Inner runner	42 x 42 - 86 x 86	12 - 48	100 - 1500	serial
Outer runner	Ø10 - Ø110	3,3 - 60	1,2 - 1500	optional
Frameless motor	Ø50 - Ø86	12 - 48	300 - 4000	optional



Double-D-Cut Pinion Round shaft

Slotless Slotted





POWER

■ Up to 2000 W

FUTHER OPTIONS

- Wires
- Connectors
- Temperatur sensors
- Digital Hall-sensors
- Shaft geometry
- Integrated controller







ADVANTAGES

- High positioning accuracy with fast positioning
- High power density
- Long lifetime
- With external or integrated controller
- Interfaces for various Ether buses for complex applications

MOTOR VERSIONS

Controller / Driver	Encode
Integrated	Optic
External	Magn



APPLICATIONS

Servo motors are used in machines and devices that require quick and precise positioning of axes. They have at least closed-loop feedback and often have a complete control integrated.

- CNC machines
- Robotics

production

Lithography

CAM systems

- Optic production Laser systems
- Semiconductor Intralogistics
 - Diagnostic systems



Ethernet/IP ■ RS485

EtherCAT

Gear boxes Planetary Angle

Size / Flange (mm)	Voltage (V)	Rated speed (rpm)	Rated torque max. (Nm)	Rated power max. (W)	Brake
Ø8 - Ø75	3 - 48	1500 - 30000	0,005 - 3,0	150	
40 × 40	24 - 400	3000 / 6000	0,32	175	
60 × 60	24 - 400	3000 / 6000	1,91	600	
80 × 80	48 - 400	3000 / 6000	3,18	1300	
100 × 100	230 - 400	3000 / 6000	6,37	2000	onal
115 x 115	230 - 400	3000	7,3	2300	opti
130 × 130	48 - 400	1500 - 3000	7,5	2000	
142 x 142	230 - 400	3000	15,9	5000	
150 × 150	230 - 400	3000	19,1	6000	
180 × 180	230 - 400	1500 - 3000	47,75	8000	

Interfaces

ProfiNet

CANopen

Modbus



TECHNOLOGIES

- DC motors
- BLDC motors
- AC motors
- Stepper motors

SIZES

From 8 mm diameter

CUSTOM-SPECIFIC ADAPTATIONS

- Winding
- Torque
- Product labeling
- Insulation classes

CUSTOM-SPECIFIC ATTACHMENT PARTS

Motor mounts Housing

FURTHER OPTIONS

- Motor shaft
- Integrated controller





- Environmental conditions
- Lifetime
- Mechanical interfaces
- Step angle
- Hollow shaft
- Injection molded parts
- Controller
- Encoder

Interfaces to Ethernet bus systems

ADVANTAGES

Very cost-effective

Long lifetime

Easy control

Low noise

Robust, low-maintenance design

AC asynchronous motors can be found in many different applications - be it in industry, transport or even in private households. Single- or three-phased, designed in different sizes, AC asynchronous motors are characterized by their simple and robust build. As long-term runners, they require very little maintenance, are long-lasting and cost-effective.

Automation technology Pump technology

Bottling plants

Fans

Compact design

Belt drives

Can be combined with a variety of gearboxes

as well as with speedometer and brakes

- Manufacturing engineering such as pressing and punching
- Small compressors

AC drives

VERY ROBUST. COST-EFFECTIVE. DURABLE.

MOTOR TECHNOLOGIES

- Single phase
- Three-phase

POWER

■ Up to 200 W

MOTOR VERSIONS

Induction Motors

Reversible Motors

Brake Motors

- Holding brake

ATTACHMENT PARTS

- Angular gears
- Spur gears







orque (Nm)

Model series	Power range (W)	Motor / Gear front flange (mm)	Gear reduction	Gear box drive to
K6	6	60 × 60 / 60 × 60		0,1 3,
K7	15	70 x 70 / 70 x 70		0,3 5,
K8	25	80 x 80 / 80 x80		0,4 8,
К9	40	90 x 90 / 90 x 90	3/1 1800/1	0,7 10
K9	60	90 x 90 / 90 x 90		1,1 30
K9	90	90 x 90 / 90 x 90		1,7 30
К9	180	90 x 90 / 90 x 90		1,7 30
К9	200	90 x 90 / 90 x 90		1,7 30

Speed controller analog Speed controller digital





1 rotation direction

2 rotation directions Permanent brake

2 rotation directions

Speed Control Motors

- 1 rotation direction
- Speedometer

Speed Control & Brake Motors

- 2 rotation directions
- Speedometer generator
- Holding brake

Vibration motors are used when haptic-sensory feedback needs to be provided in a simple and cost-effective way. This makes them a good addition to human-machine interfaces.

In lane and side guard assist systems, vibration motors protect human lives.

- Steering wheels
- Touch displays
- Machine controller

Bearings

Slide Bearings

- Driving assistance systems
- Game controller Driver's seat adjustment in busses or trucks Tablet PCs



ADVANTAGES

- Simple control via DC voltage and PWM
- A variety of feedback can be achieved with one motor

Connections

Connectors

Free wires

Wiring harness

Soldering pads

Metal contacts

- Easy adjustment to the correct working point
- Cost-effective design

Oscillating weight

One-sided

Double-sided

- Ideal for battery operation
- Foamable models available

Vibration motors

COMPACT, EASY CONTROLLED, LIFE-SAVERS.

MOTOR VERSIONS

Desian

Unencapsulated,
open oscillating weight

- Encapsulated, without anti-twist protection
- Encapsulated, with anti-twist protection
- Waterproof, foamed

Product design	Diameter (mm)	Nominal voltage (mm)	Rated speed (U/min)	Power (mA)
unencapsulated	4 16	3 24	7000 20000	16 300
encapsulated without anti-twist protection	23	12 24	7300	< 200
encapsulated without anti-twist protection	24	24	7700	< 400
waterproof, foamed	20	12 24	7000 9000	< 400

MOTOR TECHNOLOGIES

Bell-shaped rotors Iron armatures

Sonic motors

CUSTOM-SPECIFIC ADAPTATIONS

- Haptics Product labeling
- Insulation classes

CUSTOM-SPECIFIC ATTACHMENT PARTS

Wiring harness

Protection hose

 Motor mounts Housing

Winding

Torque

Bandage Connectors







Environmental conditions

Tightness

Lifetime

Contacts

Interference suppression

Motor rollers

LONG LIFFTIME, HIGH THROUGHPUT, GEARLESS.

APPLICATIONS

Motor rollers enable a smooth, automated material flow during intralogistics processes in numerous industrial sectors. They must therefore ensure the transport of light to heavy loads extremely reliably, safely and cost-effectively.

- Logistics:
- Storage, sorting and distribution tasks
- Industrial automation: Material handling, material processing
- Disposal facilities

- Textile industry
- Food production and processing
- Aviation: Baggage handling

GEARLESS MOTOR ROLLERS

Gearless motorized rollers are designed for continuous use in a demanding environment and can handle a variety of tasks. Using technology derived from direct drive torque motors, motion is transferred directly from the motor to the load without the need for a gearbox. Therefore, gearless motor rollers are less maintenance-prone and have a high level of efficiency.

Technical properties

Size: Ø 46 - 76 mm

Power: 50 - 260 W

■ Torque: 0,16 - 3,1 Nm

Advantages

- High dynamics with direct drive technology
- Long lifetime
- Silent operation
- Easy commissioning
- Many varieties of speeds

PALLET CONVEYORS

Pallet conveyor motor rollers are used to move entire pallets or other large and heavy goods carriers. The heavyduty scooters must work reliably, precisely and efficiently without bending.

Advantages

Technical properties

- Payload up to 1500 kg
- 3-stage planetary gear
- High power density
- Flexible and precise motion control
- Size: outer Ø 70 and 89 mm
- Power: 400 W. 48 VDC and 400 VAC
- Conveying speed: 16,2 - 22,2 m/min
- IP 54

Torque motors

PRECISE POSITIONING, LARGE HOLLOW SHAFT, BACKLASH FREE,

APPLICATIONS

Torque motors are used for fast and precise travel and positioning tasks. Due to the enormous power and torque density of torque motors, it is possible to completely eliminate translation elements such as gears and belts.

ADVANTAGES

- Highest precision
- User friendly
- Compact, robust and high
- power density
- Backlash-free and low-noise
- Low implementation time
- Large hollow shaft
- No rotor losses
- With NdFeB-magnets







- Presses
- Pumps
- Ship drives and winches
- Aviation
- Wind and hydroelectric power plants

TECHNICAL PROPERTIES

■ Size: Ø 179, 290, 390, 490 mm ■ Torque: up to 2400 Nm Power range: 2 - 760 Nm Voltage range: 230/400 VAC



Controls are available in different versions for a wide variety of motor technologies. They have a variety of interfaces for controlling the drives. They can often be integrated into existing fieldbus systems and thus become an essential part of modern machines and systems.

Controllers

EASY CONNECTION. COMPACT. EXCELLENT RUNNING PROPERTIES.

INTERFACES

analog input

TECHNOLOGIES

Stepper motor controllers

- BLDC / Servo motor controllers
- AC servo motor controllers

CanOPENEtherCAT

CUSTOM-SPECIFIC ADAPTATIONS

- IP protection
- Designs
- Firmware
- Programming
 Product labeling
 Number of I/Os

ADVANTAGES

- Excellent running properties
- Compact design
- Support of common bus systems
- Easy integration into existing systems
- Single and multi-axis systems
- Programmable as stand-alone solutions
- Variety of supported motor technologies

CONTROLLER VERSIONS

Stepper motor controllers

- Open and closed loop
- Stand-alone
- Usage in a switch cabinet

Servo motor controllers

With different power ranges

Programmable and interface ready for









AAA





Clock, direction and

- ProfiNet
- Ethernet/IP
- Modbus
- RS232/422/485

FURTHER OPTIONS

- Open or closed loop
- Digital and analog in- and outputs
- Security functions (STO + SS1)





CUSTOMIZE YOUR DRIVE

Only what the customer application needs is integrated - according to the modular principle. The control integrated in the drive is programmed easily and quickly via the StepperConfigTool (plug and play).



More information about KannMOTION.



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