## MODEL REFERENCE TABLE SELECTION

■ There are two conditions for the use of the clutch:

1. After the completion of the startup, add the load (for example, the lathe processing has reached a certain speed for cutting).
2. Load has been added at startup (for example, when the conveyor belt starts up, the load has been connected and started at the same time).

Select table 1: load after startup.

| Motor capacity | r.p.m | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1500 | 1800 | 2000 | 2400 | 3000 | 3600 | 4000 | 4600 | 5000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.015KW | 1/50HP | ■ | ■ | ■ | | | | | | | | | | | | | | | | | | |
| 0.035KW | 1/20HP | | ■ | ■ | ■ | ■ | ■ | ■ | | | | | | | | | | | | | | |
| 0.065KW | 1/12HP | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | | | | | | | | |
| 0.1KW | 1/8HP | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | | | | | | |
| 0.125KW | 1/5HP | | | | ■ | ■ | ■ | ■ | ■ | 1.2 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| 0.2KW | 1/4HP | ■ | | | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| 0.25KW | 1/3HP | ■ | | | | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| 0.4KW | 1/2HP | | ■ | ■ | | | | | | | | | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| 0.55KW | 3/4HP | ■ | | ■ | ■ | ■ | | | | 2.5 | | | | | | | | | | | | |
| 0.75KW | 1HP | | | | ■ | ■ | ■ | ■ | | | | | | | | | | | | | | |
| 1.1KW | 11/2HP | | ■ | | | | ■ | ■ | ■ | 5 | ■ | ■ | | | | | | | | | | |
| 1.5KW | 2HP | ■ | | ■ | | | | | ■ | | ■ | ■ | ■ | | | | | | | | | |
| 2.2KW | 3HP | ■ | | | ■ | | | | | | | ■ | ■ | ■ | ■ | ■ | | | | | | |
| 3.7KW | 5HP | | ■ | | | ■ | ■ | | | 10 | | | | ■ | ■ | ■ | ■ | | | | | |
| 5.5KW | 71/2HP | ■ | ■ | ■ | | | | ■ | ■ | | | | | | | | ■ | ■ | ■ | ■ | | |
| 7.5KW | 10HP | ■ | | ■ | ■ | | | | | 20 | ■ | ■ | ■ | | | | | ■ | ■ | ■ | | |
| 11KW | 15HP | | ■ | | ■ | ■ | ■ | | | 40 | | | | ■ | | | | | | ■ | | |
| 15KW | 20HP | | ■ | | | ■ | ■ | ■ | | | | | | | ■ | ■ | | | | | | |
| 19KW | 25HP | | | ■ | | | ■ | ■ | ■ | 65 | ■ | | | | | | ■ | ■ | | | | |
| 22KW | 30HP | | | ■ | ■ | | | | ■ | | ■ | ■ | ■ | | | | | ■ | ■ | | | |
| 30KW | 40HP | | | | ■ | ■ | | | | | ■ | ■ | ■ | ■ | | | | | ■ | | | |
| 37KW | 50HP | | | | | ■ | ■ | ■ | | 100 | | | ■ | ■ | ■ | ■ | | | | | | |
| 45KW | 60HP | | | | | | ■ | ■ | ■ | | | | | ■ | ■ | ■ | ■ | | | | | |
| 55KW | 75HP | | | | | | | | ■ | | 200 | ■ | | | ■ | ■ | ■ | | | | | |
| 75KW | 100HP | | | | | | | | | | | ■ | ■ | ■ | | | | | | | | |
| 92KW | 125HP | | | | | | | | | | | | ■ | ■ | ■ | | | | | | | |
| 110KW | 150HP | | | | | | | | | | | | | ■ | ■ | | | | | | | |

Select table 1: cases where the maximum load has been applied at startup.

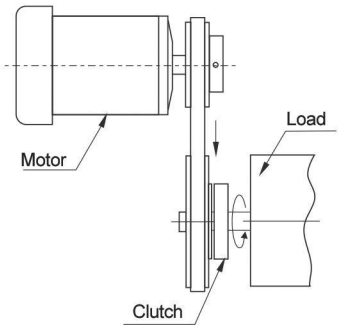
| Motor capacity | r.p.m | 100 | 200 | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1500 | 1800 | 2000 | 2400 | 3000 | 3600 | 4000 | 4600 | 5000 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.015KW | 1/50HP | ■ | ■ | ■ | | | | | | | | | | | | | | | | | | |
| 0.035KW | 1/20HP | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | | | | | | | | | | | |
| 0.065KW | 1/12HP | | | ■ | ■ | ■ | ■ | ■ | ■ | | ■ | ■ | ■ | ■ | ■ | | | | | | | |
| 0.1KW | 1/8HP | | | | | ■ | ■ | ■ | ■ | 1.2 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | | | |
| 0.125KW | 1/6HP | | | | | | ■ | ■ | ■ | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| 0.2KW | 1/4HP | | | | | | | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| 0.25KW | 1/3HP | | | | | | | | | 2.5 | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| 0.4KW | 1/2HP | | | ■ | ■ | ■ | | | | | | | | | | | | ■ | ■ | ■ | ■ | ■ |
| 0.55KW | 3/4HP | | | | ■ | ■ | ■ | ■ | | | | | | | | | | | | | | |
| 0.75KW | 1HP | | ■ | | | ■ | ■ | ■ | ■ | 5 | ■ | ■ | | | | | | | | | | |
| 1.1KW | 11/2HP | | | ■ | | | | | | | ■ | ■ | ■ | ■ | ■ | ■ | | | | | | |
| 1.5KW | 2HP | | | ■ | ■ | | | | | 10 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | | | | |
| 2.2KW | 3HP | | ■ | | ■ | ■ | ■ | | | | | | | | | ■ | ■ | ■ | ■ | ■ | | |
| 3.7KW | 5HP | | ■ | ■ | | | | ■ | ■ | 20 | ■ | ■ | ■ | ■ | | | | | | | | |
| 5.5KW | 71/2HP | ■ | | ■ | ■ | | | | | 40 | | | | ■ | ■ | ■ | ■ | ■ | ■ | | | |
| 7.5KW | 10HP | ■ | | ■ | ■ | ■ | ■ | | | | | | | | | | | | | | | |
| 11KW | 15HP | | ■ | ■ | | ■ | ■ | ■ | ■ | 65 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | | | |
| 15KW | 20HP | | ■ | ■ | ■ | ■ | | | | 100 | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | | | |
| 19KW | 25HP | | | ■ | ■ | ■ | ■ | ■ | ■ | | ■ | ■ | | | | | | | | | | |
| 22KW | 30HP | | | | ■ | ■ | ■ | ■ | ■ | 200 | ■ | ■ | ■ | ■ | ■ | | | | | | | |
| 30KW | 40HP | | | | | | ■ | ■ | ■ | | ■ | ■ | ■ | ■ | ■ | | | | | | | |

TENSION CONTROL SYSTEM FOR REWINDING AND UNWINDING

## BASIC USAGE OF ELECTROMAGNETIC CLUTCH

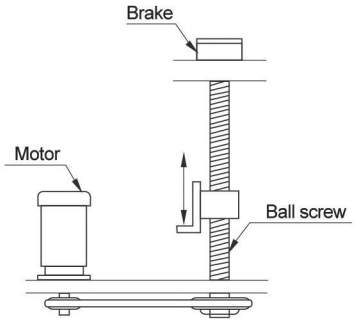
### 1. Connect and cut off

An electromagnetic clutch is mounted between the driving part and the driven part, and the driving side keeps continuous operation. The driven side can be connected or cut off as required.



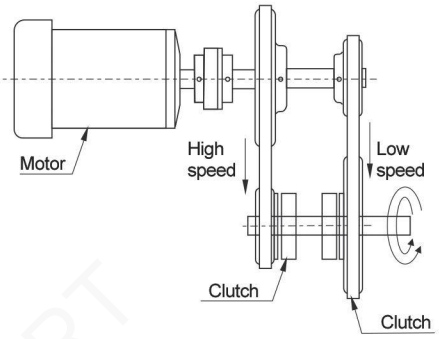

### 2. Braking and maintenance

Brake can use load inertia stop or emergency mechanical stop, work on the way to stop, maintain.



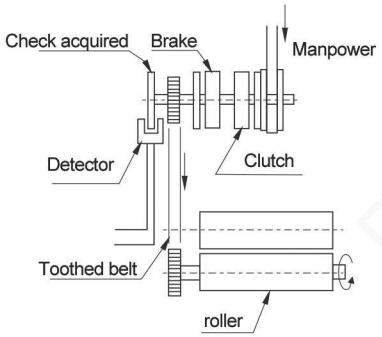

### 3. The variable speed

In the work, make the working speed switch between low speed and high speed, without stopping the driving side.



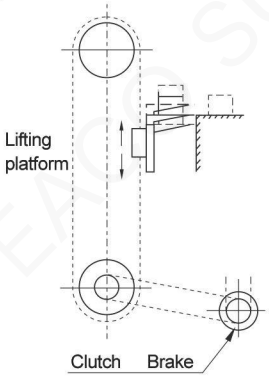

### 4. High frequency operation

Because the starting and stopping frequency of the motor is limited, the use of clutch brake can make the machinery to achieve high frequency continuous operation, and can achieve fast response and high precision requirements.



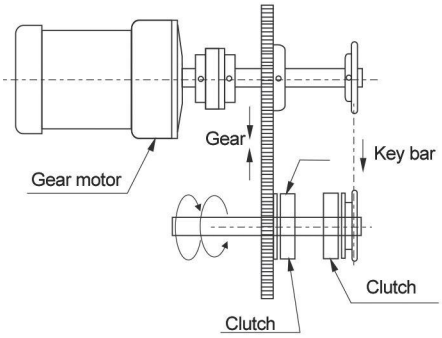

### 5. Inching

The clutch and brake can be inching when the machine is in operation or positioning.



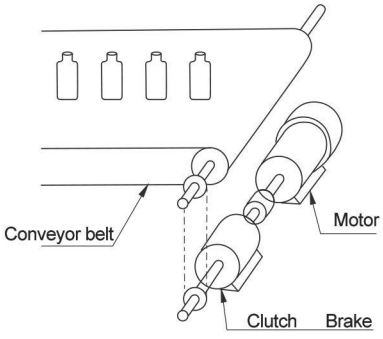

### 6. And reversing

The working load side rotation can be switched between forward rotation and reverse rotation, which can be realized by clutch combination. The driving side keeps the same direction rotation, while the load side can be positive and negative rotation.



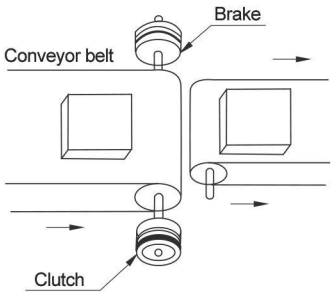

### 7. Slow start and stop

When buffering start and stop, adjusting torque of clutch and brake can reduce the impact of load, but Slip time must be shortened to avoid overheating.



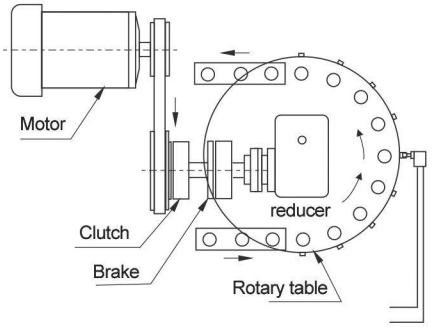

### 8. Overload protection

When the machine is overloaded, the clutch will slip to avoid damage to the machine, but an auxiliary mechanism is needed to check. Disengage the clutch and brake urgently.




### 9. Position stop/indexing

Clutch and brake can be applied to automatic and high-precision position stop, can stop in a predetermined position or move a predetermined amount.



CONTROLCIRCUIT OF ELECTROMAGNETIC CLUTCH/BRAKE

# Circuit control instructions

The main power supply used in the electromagnetic clutch/brake is DCpower supply, of which DC24V is the standard specification (special specification 48v.90v.180v needs to be customized). Depending on usage characteristics, the following control methods can be used together.

## 1. Basic loop

The basic control circuit consists of dc power supply, surge absorption circuit and switch. (FIG. 1) is a simple on/off switch control circuit. (FIG. 2) the contact is disconnected or closed to control the circuit by controlling the relay with a button switch, and the contact capacity is at least 10 times of the load current.

## 2. High-speed control loop

In order to adapt to high precision, high frequency and rapid actuation, the following special controls can be used to shorten the armature attraction time and torque establishment time of the electromagnetic clutch/brake:

A. Rapid excitation loop: the armature attracting time and torque setting time can be significantly improved when the electromagnetic clutch is connected in series with the shock resistance and the current and voltage of four times the rated voltage of the electromagnetic clutch are added to the loop instantaneously. (figure 3)

B. Capacitor over-excitation loop -- the time taken to establish the initial current using the discharge energy of the capacitor. (figure 4)

C. Timer control circuit (overvoltage mode) -- that is, in the initial stage, the instantaneous excitation clutch is twice higher than the rated voltage, the establishment of current is advanced and the torque establishment time is improved, but the release time is slow. (figure 5)

## 3. Discharge circuit

When the dc current is cut off, the coil will be sent out several times higher than normal voltage instantaneous inverse phase voltage, the inverse phase voltage contact causes spark discharge phenomenon, may lead to damage of the switch contacts, or circuits of semiconductor overvoltage is damaged, if continue this status for a long time, have a bad influence on the coil, so the loop device must surge absorber. In order to extend the life of relay contacts, relay contacts can be connected in series to increase the distance between the contacts and quickly cut off the contact life of power protection.

A. Standard discharge circuit -- mainly with surge absorber, with large resistance value when voltage is low and sharply reduced resistance value when voltage is high, no power loss, good absorption rate and quick release effect. (figure 6)

B. Resistors and capacitors -- capacitors and resistors are used to absorb the surge voltage generated when the switch is cut off. The appropriate choice of capacitors and resistors can shorten the release time. (figure 7)

Schematic diagram of circuit control

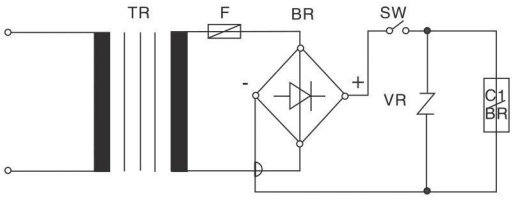



FIG. 1

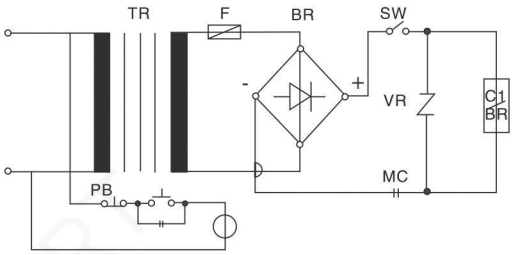



FIG. 2

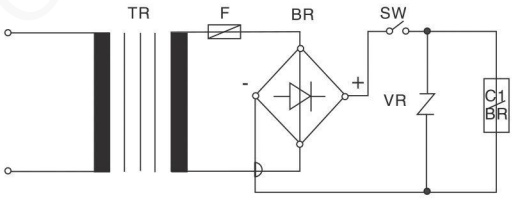



FIG. 3

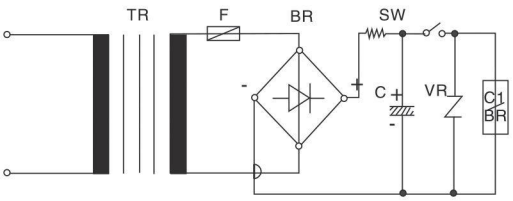



FIG. 4

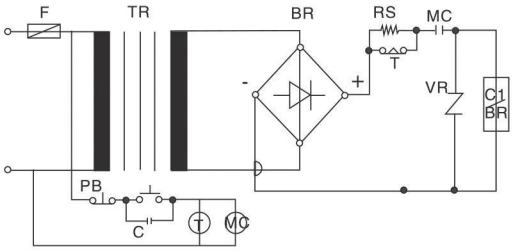



FIG. 5

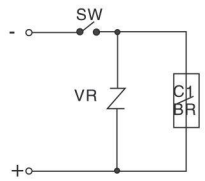



FIG. 6

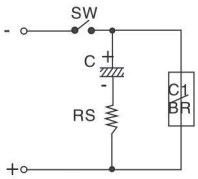
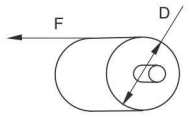



FIG. 7

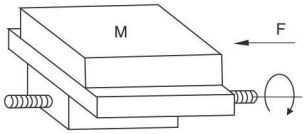
## LOAD TORQU EFORMULA

● Torque of the rotating body when external force is added: T



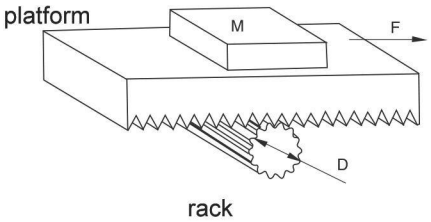

D: diameter of drum (m)
F: external force (N)
T=1/2D·F[N.m]

● Friction force of screw teeth, torque caused by external force: T



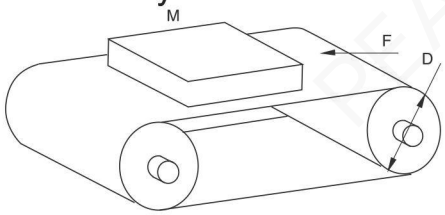

P: stroke of screw teeth (m)
M: weight of load (kg)
G = gravitational acceleration (m/s2)
U: coefficient of screw tooth
F: external force (N)
T=1/2n P(F+uMg)[N.m]
(In general, u is about 0.06~0.2)

● Friction of rack and torque caused by external force: T



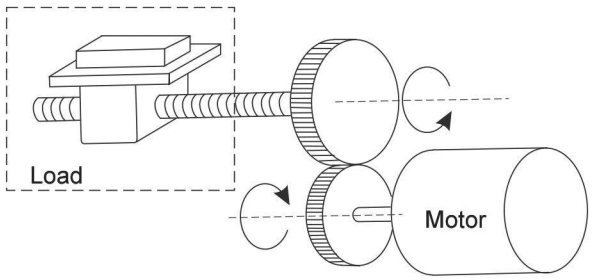

D: diameter of gear (m)
M: weight of load (kg)
G = gravitational acceleration (m/s2)
U: friction coefficient of gears
F: external force (N)
T=1/2n (F+uMg)[N.m]
(In general, u is about 0.08~0.1)

● Friction of conveyor belt and torque caused by external force: T




D: diameter of roller (m)
M: weight of load (kg)
G = gravitational acceleration (m/s2)
U: friction coefficient of conveyor belt
F: external force (N)
T=1/2n (F+uMg)[N.m]
(In general, u is about 0.05~0.1)

● Converted torque of motor shaft: To



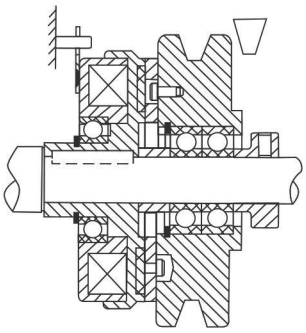

Z1: number of teeth of motor side gears
Z2: number of teeth of load side gears
R: gear ratio: Z1/Z2
N: communication efficiency %/100
T: load side torque (N.m)
To=R·T/n[N.m]

※The value of each friction coefficient u will vary due to the machining precision and lubrication state of the machine, please pay special attention to the calculation of load torque.
※The transmission efficiency n between the motor and the load varies with the connection mode
Flat gear: 0.85 key bar: 0.9 V pulley: 0.9

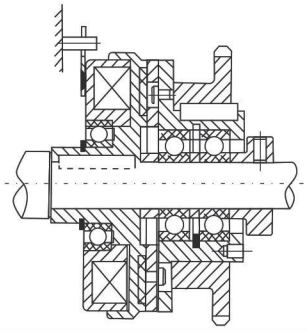
## EXSAMPLE USAGE OF ELECTROMAGNETIC CLUTCH/BRAKE

Installation examples

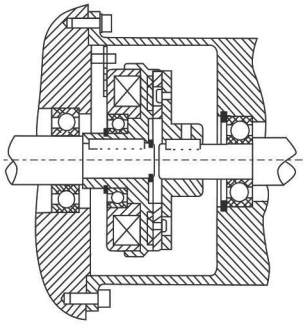
MCS Clutch:The armature plate is directly connected to the v-belt.



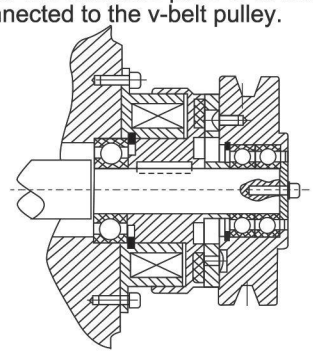
MCS-1 Clutch:The bearing guide seat is connected to the sprocket.



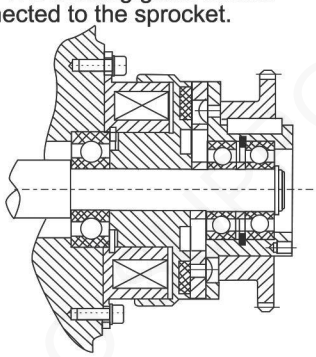
MCS-2 Clutch:Use the guide seat to mount the dividing shaft. Pay attention to concentricity and verticality.



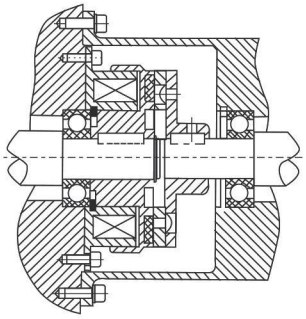
FCD Clutch:Mounted on the machine wall. The armature plate is directly connected to the v-belt pulley.



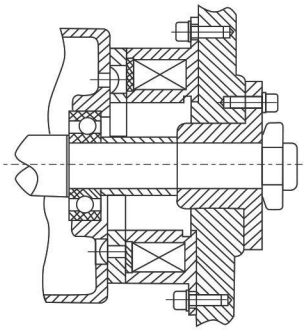
FCD-1 Clutch:Mounted on the machine wall. The bearing guide seat is connected to the sprocket.



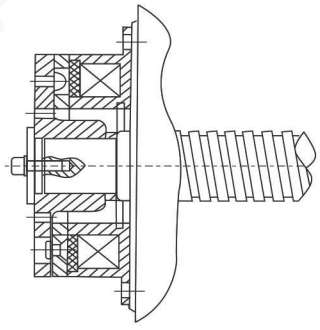
FCD-2 Clutch:Use its guide seat to install the dividing shaft. Pay attention to concentricity and verticality.



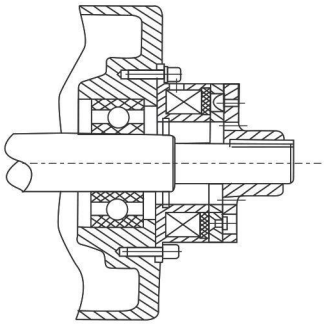
FBD Brake:The coil body is fixed on the support plate.



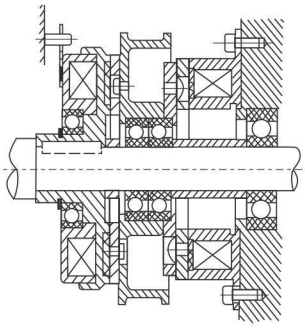
FBD-1 Brake:Mounted on shaft end with guide seat flange facing inward.



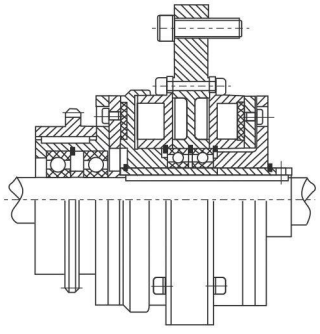
FBD-2 Brake:Mounted on shaft end with guide seat flange facing out.



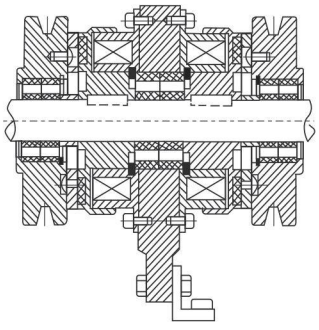
The clutch/brake MCS-FBD combination is mounted on both sides of the pulley.



The clutch/brake FCD-FBD combination is mounted on both sides of the strut.



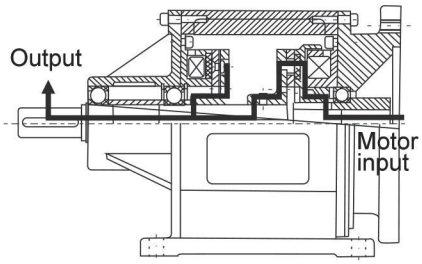
Dual clutch FCD-FCD is mounted on the through shaft and can be used for reversing and shifting.



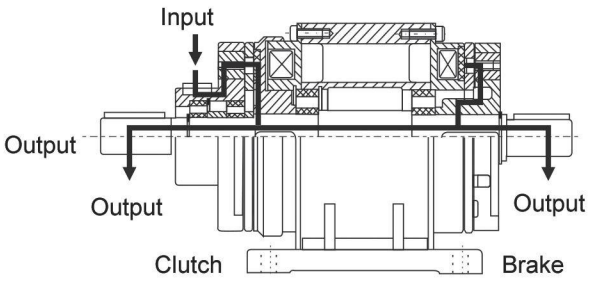
TENSION CONTROL SYSTEM FOR REWINDING AND UNWINDING

## EXAMPLES AND WORKING PRINCIPLES

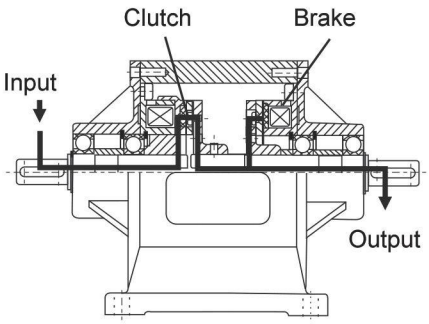
MMP:Working principle



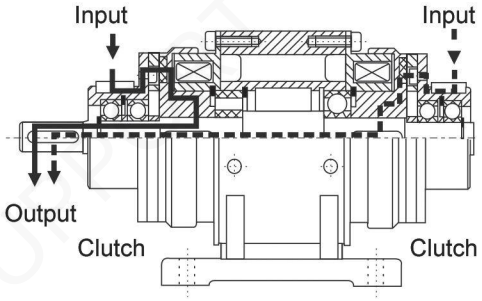

NMP:Working principle



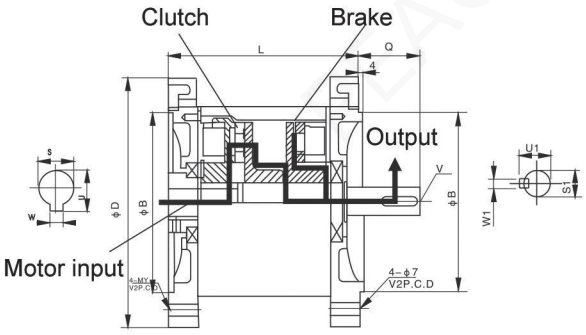

FMP:Working principle



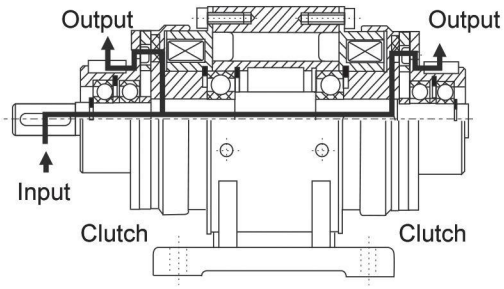

FMT:Working principle(1)



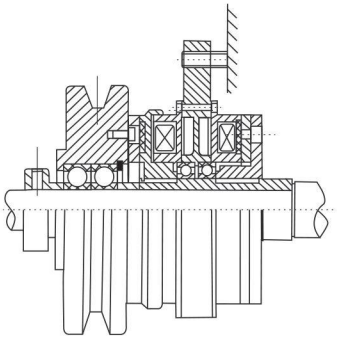

TMP:Working principle



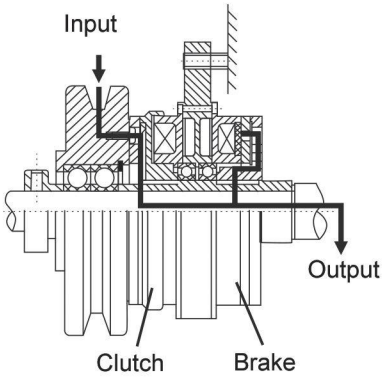

FMT:Working principle(2)




SMP:Application examples



SMP:Working principle

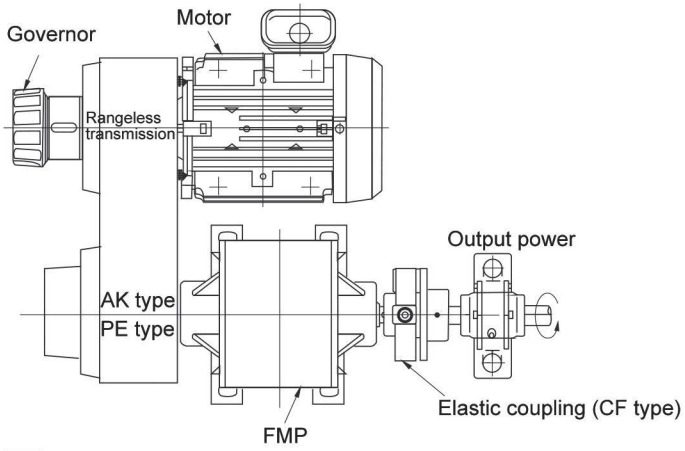


## EXSAMPLE USAGE OF ELECTROMAGNETIC CLUTCH/BRAKE

### Install the sample

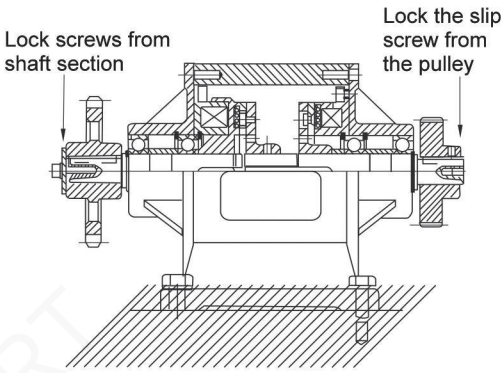
Clutch brake, usually installed after the motor and transmission unit. This clutch brake is recommended for use with our belt-type transmission unit. We have assembled good products, respect, please call to discuss.

And transmission combination



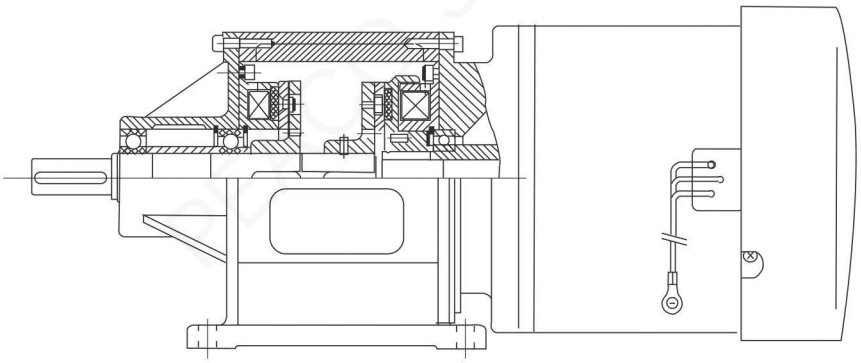

### Install the sample

The end faces of the output shaft and input shaft are provided with screw holes, and the pulley can be simply mounted by using the corroded fixture. The fixing method is fixed by locking screws from the end face or locking sliding screws from the pulley.



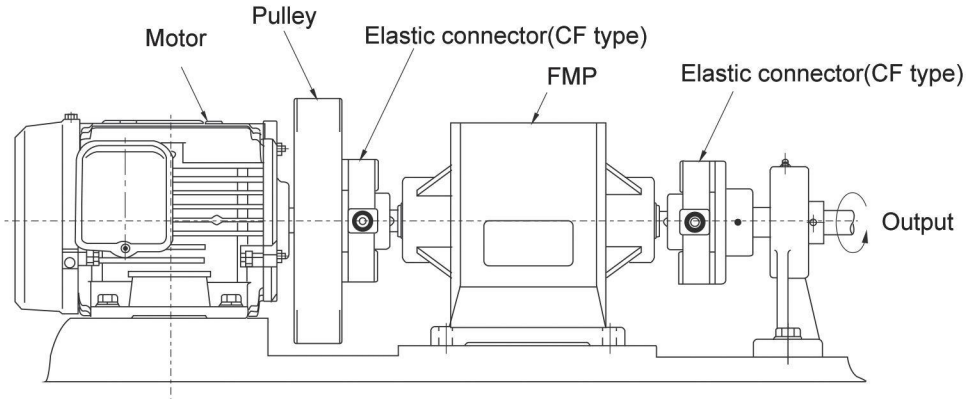

### Power convey

The motor shaft is directly used as the input shaft of the clutch, and the output shaft is separated. The operation of the motor is transmitted to the output shaft through the clutch. In addition, if the current in the clutch is cut off while the brake is energized, the output shaft is cut off from the motor for an instant stop.



### The direct link to the motor example

Generally speaking, because the Coupling only has a smaller moment of inertia than Pulley and Sprocket, it is usually used for assembly with clutch brakes. In particular, this clutch is often used in conjunction with our flexible coupling. The method of assembling the flywheel on the side of the motor works very well.

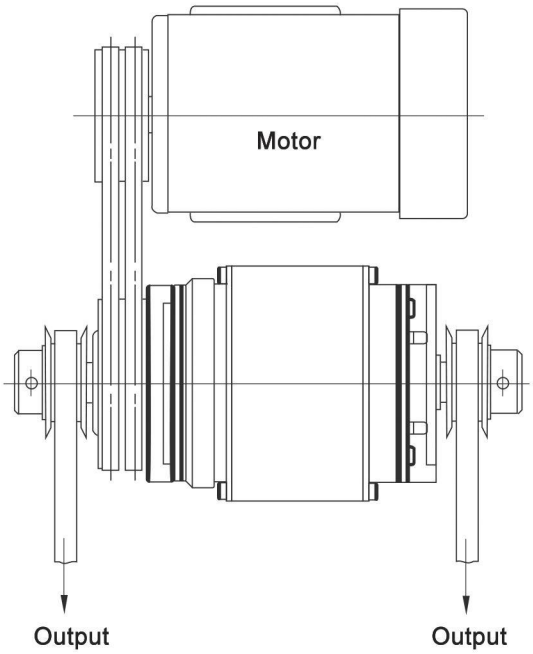


## EXSAMPLE USAGE OF ELECTROMAGNETIC CLUTCH/BRAKE

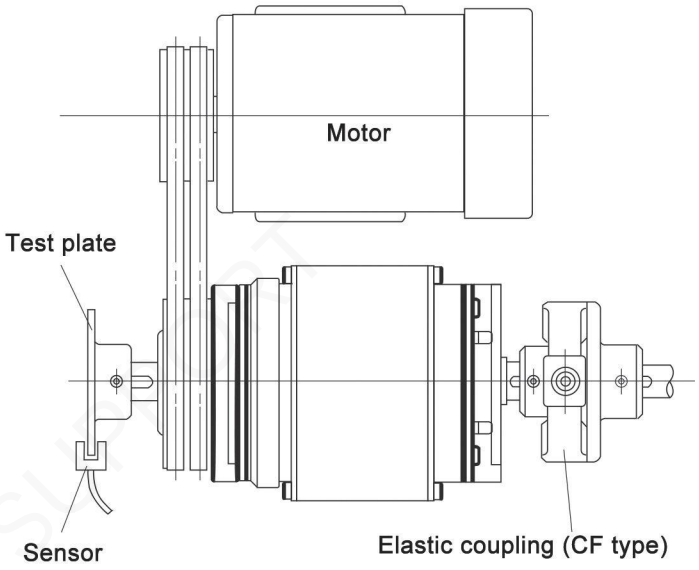
### Install the sample

Because the clutch brake pack has two output shafts available, both ends can be output at the same time. Or one end is connected to the output, the other end assembly rotation detection circular plate, etc. To use. It can also be made into a variety of transmission line configuration.

An assembly example with two end outputs



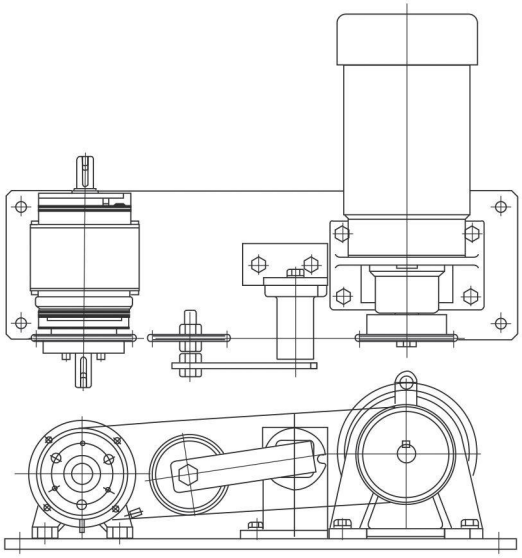

An assembly example of a one-end assembly test board



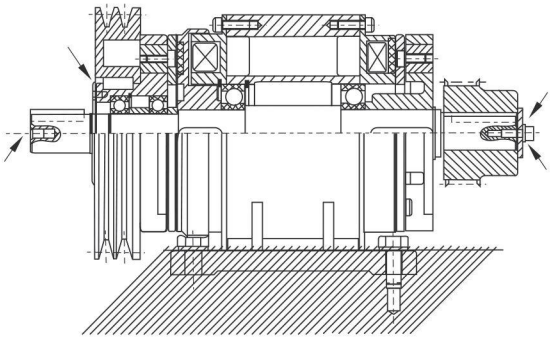

### Special form

The following drawings are special shapes. If you want to assemble the driving device other than the drawing, or need the shape with pulley and chain gear, etc., we can cooperate with you.

A single base assembly of transmission motors and chain gears.



V pulley device in the input end of the clutch brake set



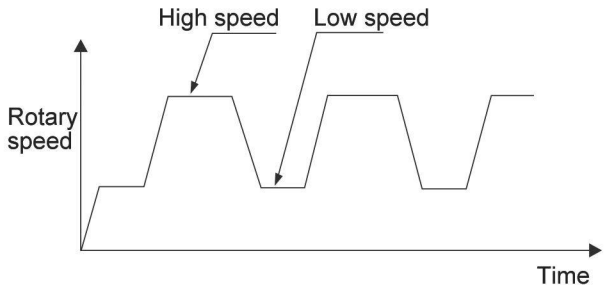
## EXSAMPLE USAGE OF ELECTROMAGNETIC CLUTCH/BRAKE

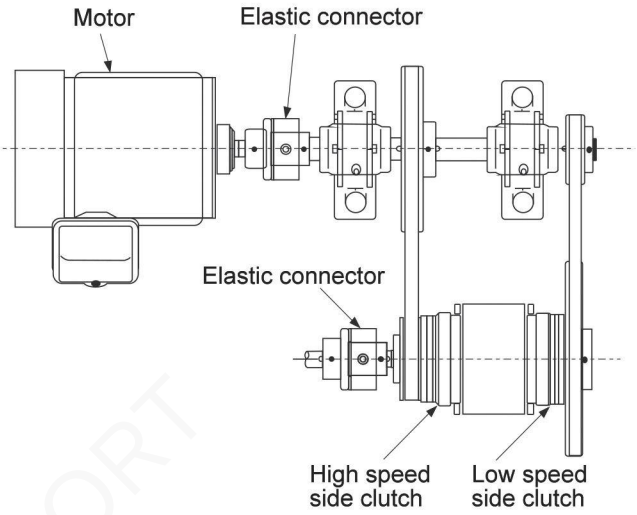
### Used in the 2-speed case

In order to make 2 speed changes, first connect the power of high speed and low speed respectively on the two hubs, and then use the clutch to switch the output shaft to high speed or low speed.

**※Note：**

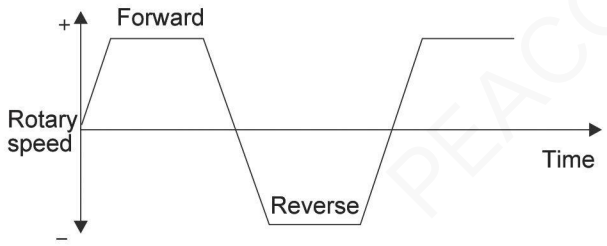
On the contrary, if the shaft is used as the input shaft, the clutch will rotate at a high speed because of the ratio of speed change, which may lead to the damage of perrin.

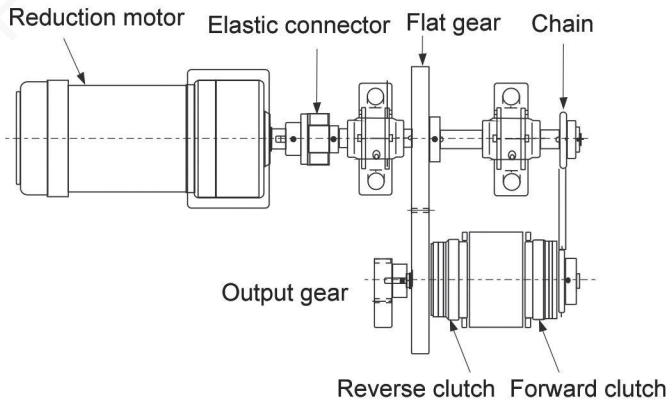



### Used for positive and negative rotations

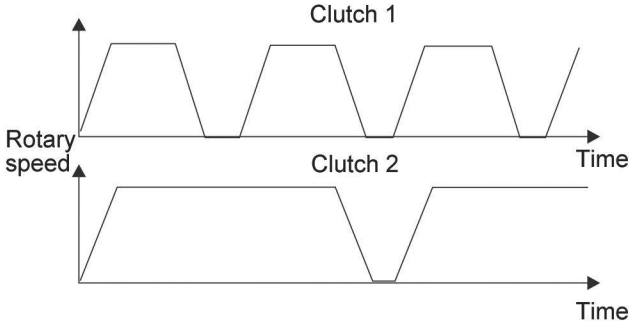
Since there is no brake in this device, the forward and reverse rotation is more effective at low speed or under light load. In the example on the right, the drive shaft is connected to its housing by chains and gears, and the clutch is used to control the positive and negative rotation of the output shaft. In addition, two motors are used to separate the positive and negative control methods.

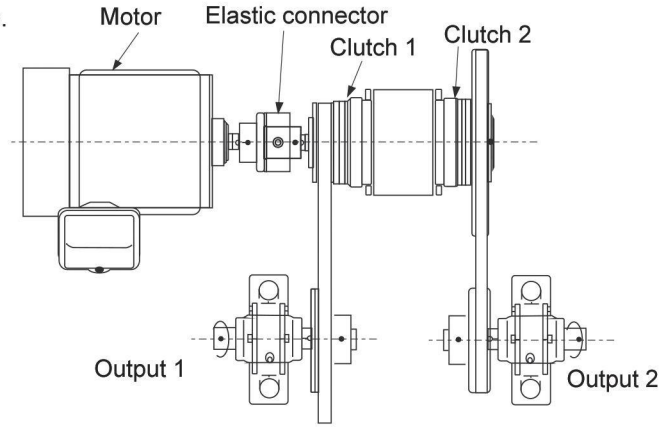



### Experiments in power distribution

The power input from the shaft can keep the respective clutches on-off at any time, so the power of one can achieve the function of two.

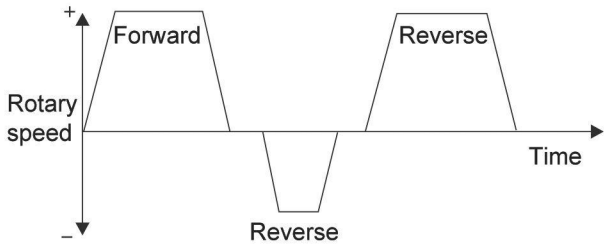


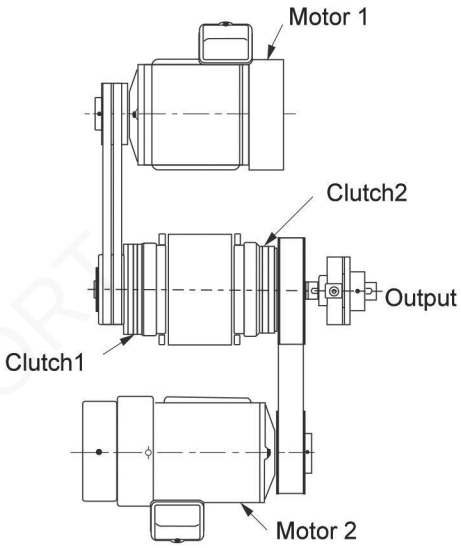



## EXSAMPLE USAGE OF ELECTROMAGNETIC CLUTCH/BRAKE

### ■ Can be used in the forward and backward examples

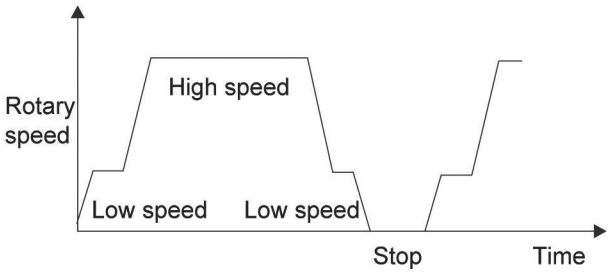
This is an example of using two motors to turn forward and backward. The motor is often maintained in operation, because of the change of speed and can be reverse rotation, in the operation of any load can be stopped.

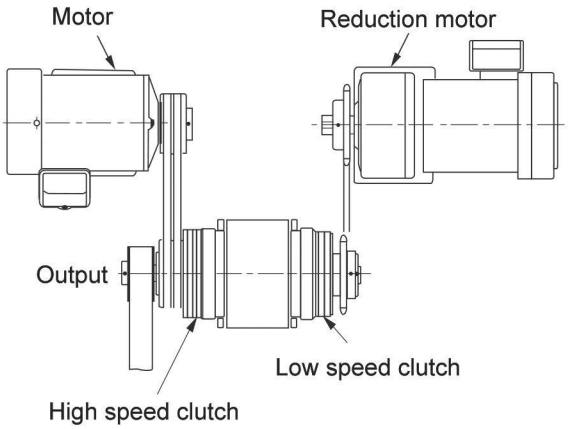



### ■ Examples of variable speed and stop at both ends

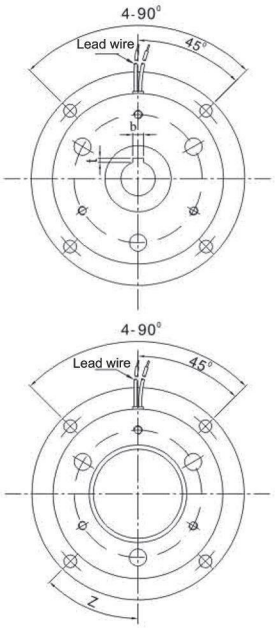
This device can be used when the winding machine must be stopped at a specific position with high precision or when the number of coils is controlled. It can be controlled very easily and precisely by means of continuous movements such as low-speed, high-speed and stop.

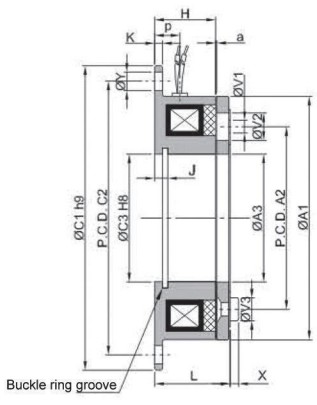


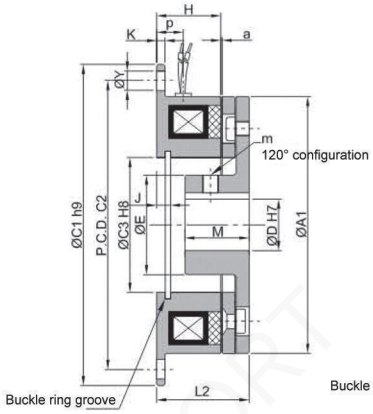
# FBD/FBD-1/FBD-2 MODEL DRY SINGLE-PLATE MAGNETIC BRAKE

**Use** Braking, maintenance, high frequency operation, positioning, inching, etc.

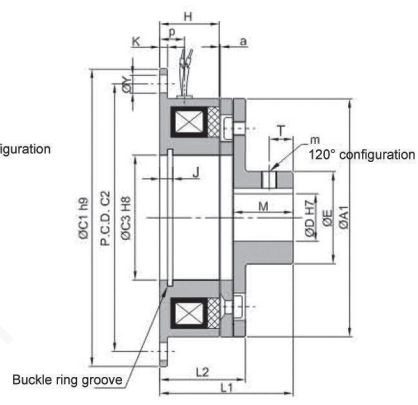



FBD Standard




FBD-1 With plating hub




FBD-2 With plating hub

## Parameters

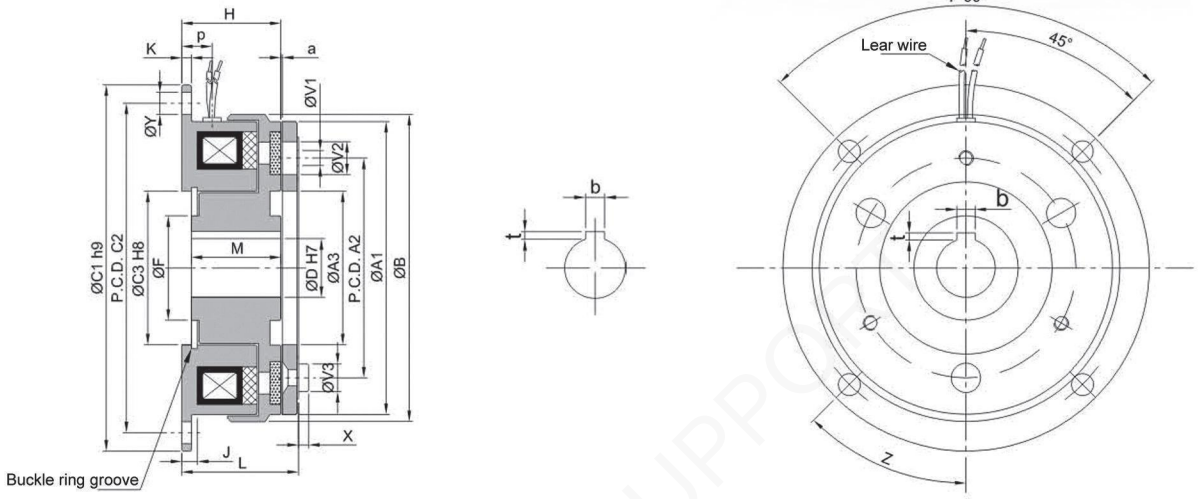
▶Rated voltage:DC24V

| MOTEL | | FBD(-1)(-2) -006 | FBD(-1)(-2) -015 | FBD(-1)(-2) -025 | FBD(-1)(-2) -050 | FBD(-1)(-2) -100 | FBD(-1)(-2) -200 | FBD(-1)(-2) -400 |
|---|---|---|---|---|---|---|---|---|
| Dynamic friction torque[kgm](Nm) | | 0.6(6) | 1.5(15) | 2.5(25) | 5.0(50) | 10(100) | 20(200) | 40(400) |
| Static friction torque[kgm](Nm) | | 0.5(5) | 1.0(10) | 2.0(20) | 4.0(40) | 8(80) | 16(160) | 32(320) |
| Powder[DC24V](W)at20℃ | | 11 | 15 | 20 | 25 | 35 | 45 | 60 |
| Weight(kg) | FBD | 0.28 | 0.5 | 0.91 | 1.68 | 3.15 | 5.9 | 10.5 |
| | FBD-1(-2) | 0.32 | 0.58 | 1.07 | 1.97 | 3.45 | 7.1 | 12.2 |
| Maximum speed(r/min) | | 1800 | | | | | | |
| | | | | | | | | |
| Radial Direction | A1 | 63 | 80 | 100 | 125 | 160 | 200 | 250 |
| | A2 | 46 | 60 | 76 | 95 | 120 | 158 | 210 |
| | A3 | 34.5 | 41.5 | 51.5 | 61.5 | 79.5 | 99.5 | 124.5 |
| | C1 | 80 | 100 | 125 | 150 | 190 | 230 | 290 |
| | C2 | 72 | 90 | 112 | 137 | 175 | 215 | 270 |
| | C3 | 35 | 42 | 52 | 62 | 80 | 100 | 125 |
| | V1 | 3-3.1 | 3-4.1 | 3-5.1 | 3-6.1 | 3-8.1 | 3-10.2 | 3-12.2 |
| | V2 | 3-6.3 | 3-8 | 3-10.5 | 3-12 | 3-15 | 3-18 | 4-22 |
| | V3 | 3-6 | 3-7 | 3-9 | 3-10.5 | 3-14 | 3-17 | 4-19 |
| | D | 12 15 | 15 20 | 20 25 | 25 30 | 30 40 | 40 50 | 50 60 |
| | E | 26 | 31 | 41 | 49 | 65 | 83 | 105 |
| | Y | 5 | 6 | 7 | 7 | 9.5 | 9.5 | 11.5 |
| Axis Direction | H | 18 | 20 | 22 | 24 | 26 | 30 | 35 |
| | J | 3.5 | 4.3 | 5 | 5.5 | 6 | 7 | 8 |
| | K | 2 | 2.5 | 3 | 3.5 | 4 | 5 | 6 |
| | L | 22 | 24.5 | 28 | 31 | 35 | 41.5 | 48 |
| | L1 | 37 | 44.5 | 53 | 61 | 73 | 86.5 | 102 |
| | L2 | 25.5 | 28.5 | 33 | 37 | 42 | 50.5 | 59 |
| | M | 15 | 20 | 25 | 30 | 38 | 45 | 54 |
| | P | 7.5 | 8 | 9 | 9 | 11.5 | 13 | 15.5 |
| | T | 6 | 8 | 10 | 12 | 15 | 18 | 22 |
| | X | 1.5 | 1.8 | 2.1 | 2.8 | 3.4 | 4.5 | 5.1 |
| | Z | 6-60° | | | | | | 8-45° |
| | m | 2-M4 | 2-M5 | | 2-M6 | 2-M8 | | 2-M10 |
| | a | 0.2(±0.05) | | | $0.3(^{+0.05}_{-0.1})$ | | $0.5(^{-0}_{-0.2})$ | |
| | b | 4 5 | 5 5 | 5 7 | 7 7 | 7 10 | 10 12 | 12 15 |
| | t | 1.8 2.3 | 2.3 2.3 | 2.3 3.3 | 3.3 3.3 | 3.3 3.8 | 3.8 3.8 | 3.8 5 |

# FCD MODEL DRY SINGLE-PLATE MAGNETIC CLUTCH

## Use

Connection, cutting, variable speed, inch movement, forward reversal, high frequency operation, overload protection, etc.




## Parameters

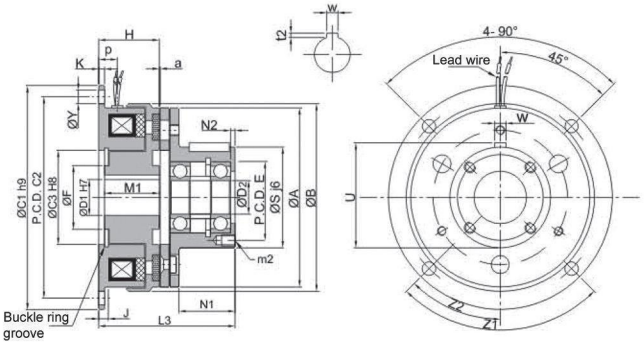
▶Rated voltage:DC24V

| MOTEL | | FCD-006 | | FCD-015 | | FCD-025 | | FCD-050 | | FCD-100 | | FCD-200 | | FCD-400 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dynamic friction torque[kgm](Nm) | | 0.6(6) | | 1.5(15) | | 2.5(25) | | 5.0(50) | | 10(100) | | 20(200) | | 40(400) | |
| Static friction torque[kgm](Nm) | | 0.5(5) | | 1.0(10) | | 2.0(20) | | 4.0(40) | | 8(80) | | 16(160) | | 32(320) | |
| Powder[DC24V](W)at20℃ | | 11 | | 15 | | 20 | | 25 | | 35 | | 45 | | 60 | |
| Weight(kg) | | 0.46 | | 0.83 | | 1.5 | | 2.76 | | 5.1 | | 9.3 | | 17 | |
| Maximum speed(r/min) | | 1800 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| Radial Direction | A1 | 63 | | 80 | | 100 | | 125 | | 160 | | 200 | | 250 | |
| | A2 | 46 | | 60 | | 76 | | 95 | | 120 | | 158 | | 210 | |
| | A3 | 34.5 | | 41.5 | | 51.5 | | 61.5 | | 79.5 | | 99.5 | | 124.5 | |
| | B | 67.5 | | 85 | | 106 | | 133 | | 175 | | 215 | | 270 | |
| | C1 | 80 | | 100 | | 125 | | 150 | | 190 | | 230 | | 290 | |
| | C2 | 72 | | 90 | | 112 | | 137 | | 175 | | 215 | | 270 | |
| | C3 | 35 | | 42 | | 52 | | 62 | | 80 | | 100 | | 125 | |
| | D | 12 | 15 | 15 | 20 | 20 | 25 | 25 | 30 | 30 | 40 | 40 | 50 | 50 | 60 |
| | F | 23 | | 28.5 | | 40 | | 45 | | 62 | | 77 | | 100 | |
| | V1 | 3-3.1 | | 3-4.1 | | 3-5.1 | | 3-6.1 | | 3-8.1 | | 3-10.2 | | 3-12.2 | |
| | V2 | 3-6.3 | | 3-8 | | 3-10.5 | | 3-12 | | 3-15 | | 3-18 | | 4-22 | |
| | V3 | 3-6 | | 3-7 | | 3-9 | | 3-10.5 | | 3-14 | | 3-17 | | 4-19 | |
| | Y | 5 | | 6 | | 7 | | 7 | | 9.5 | | 9.5 | | 11.5 | |
| | Z | 6-60° | | | | | | | | | | | | 8-45° | |
| Axis Direction | H | 24 | | 26.5 | | 30 | | 33.5 | | 37.5 | | 44 | | 51 | |
| | J | 3.5 | | 4.3 | | 5 | | 5.5 | | 6 | | 7 | | 8 | |
| | K | 2 | | 2.5 | | 3 | | 3.5 | | 4 | | 5 | | 6 | |
| | L | 28 | | 31 | | 36 | | 40.5 | | 46.5 | | 55.5 | | 64 | |
| | M | 22 | | 24 | | 27 | | 30 | | 34 | | 40 | | 47 | |
| | P | 7.5 | | 8 | | 9 | | 9 | | 11.5 | | 13 | | 15.5 | |
| | X | 1.5 | | 1.8 | | 2.1 | | 2.8 | | 3.4 | | 4.5 | | 5.1 | |
| | a | 0.2(±0.05) | | | | | | $0.3(^{+0.05}_{-0.1})$ | | | | $0.5(^{-0}_{-0.2})$ | | | |
| | b | 4 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 10 | 10 | 12 | 12 | 15 |
| | t | 1.8 | 2.3 | 2.3 | 2.3 | 2.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.8 | 3.8 | 3.8 | 3.8 | 5 |

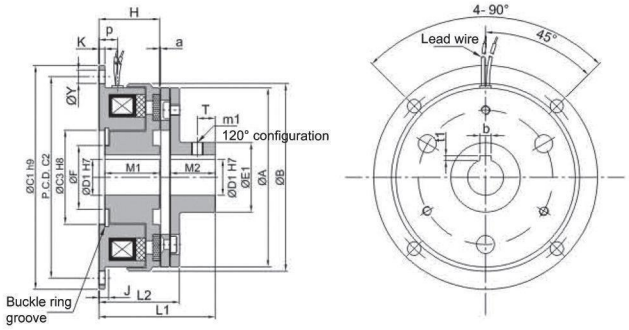
# FCD-1/FCD-2 MODEL DRY SINGLE-PLATE MAGNETIC CLUTCH

## Use

Connection, cutting, variable speed, inch movement, forward reversal, high frequency operation, overload protection, etc.




FCD-1 Bearing plating hub




FCD-2 Plating hub

## Parameters

▶Rated voltage:DC24V

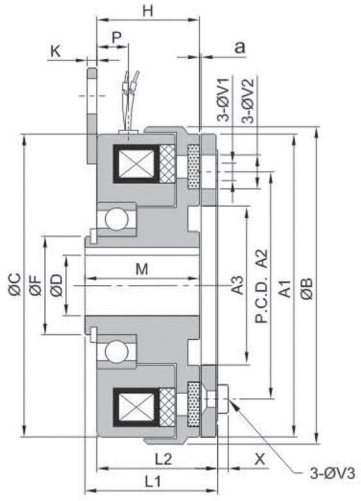
| MOTEL | | FCD-1(-2)-006 | FCD-1(-2)-015 | FCD-1(-2)-025 | FCD-1(-2)-050 | FCD-1(-2)-100 | FCD-1(-2)-200 | FCD-1(-2)-400 |
|---|---|---|---|---|---|---|---|---|
| Dynamic friction torque[kgm](Nm) | | 0.6(6) | 1.5(15) | 2.5(25) | 5.0(50) | 10(100) | 20(200) | 40(400) |
| Static friction torque[kgm](Nm) | | 0.5(5) | 1.0(10) | 2.0(20) | 4.0(40) | 8(80) | 16(160) | 32(320) |
| Powder[DC24V](W)at20℃ | | 11 | 15 | 20 | 25 | 35 | 45 | 60 |
| Weight(kg) | | 0.66(0.5) | 1.19(0.91) | 2.11(1.66) | 3.8(3.05) | 6.9(5.4) | 13(10.5) | 23.6(18.7) |
| Maximum speed(r/min) | | 1800 | | | | | | |
| Radial Direction | A | 63 | 80 | 100 | 125 | 160 | 200 | 250 |
| | B | 67.5 | 85 | 106 | 133 | 169 | 212.5 | 264 |
| | C1 | 80 | 100 | 125 | 150 | 190 | 230 | 290 |
| | C2 | 72 | 90 | 112 | 137 | 175 | 215 | 270 |
| | C3 | 35 | 42 | 52 | 62 | 80 | 100 | 125 |
| | D1 | 12 \| 15 | 15 \| 20 | 20 \| 25 | 25 \| 30 | 30 \| 40 | 40 \| 50 | 50 \| 60 |
| | D2 | 12 | 15 | 20 | 25 | 30 | 40 | 50 |
| | E1 | 26 | 31 | 41 | 49 | 65 | 83 | 105 |
| | E2 | 33 | 37 | 47 | 52 | 62 | 74.5 | 101.5 |
| | F | 23 | 28.5 | 40 | 45 | 62 | 77 | 100 |
| | S | 38 | 45 | 55 | 64 | 75 | 90 | 115 |
| | U | 39.5 | 47 | 57 | 67 | 78 | 93.5 | 118.5 |
| | Y | 5 | 6 | 7 | 7 | 9.5 | 9.5 | 11.5 |
| Axis Direction | H | 24 | 26.5 | 30 | 33.5 | 37.5 | 44 | 51 |
| | J | 3.5 | 4.3 | 5 | 5.5 | 6 | 7 | 8 |
| | K | 2 | 2.5 | 3 | 3.5 | 4 | 5 | 6 |
| | L1 | 43 | 51 | 61 | 70.5 | 84.5 | 100.5 | 118 |
| | L2 | 31.5 | 35 | 41 | 46.5 | 53.5 | 64.5 | 75 |
| | L3 | 51.5 | 60 | 71 | 86.5 | 103.5 | 124.5 | 145 |
| | M1 | 22 | 24 | 27 | 30 | 34 | 40 | 47 |
| | M2 | 15 | 20 | 25 | 30 | 38 | 45 | 54 |
| | N1 | 20 | 25 | 30 | 40 | 50 | 60 | 70 |
| | N2 | 2 | 2 | 3 | 2 | 3 | 5 | 6 |
| | P | 7.5 | 8 | 9 | 9 | 11.5 | 13 | 15.5 |
| | T | 6 | 8 | 10 | 12 | 15 | 18 | 22 |
| | W | 4 | 5 | 5 | 7 | 7 | 10 | 12 |
| | Z1 | 4-90° | | | | | | |
| | Z2 | 60° | | 45° | | 30° | 45° | 225° |
| | m1 | 2-M4 | 2-M5 | 2-M5 | 2-M6 | 2-M8 | 2-M8 | 2-M10 |
| | m2 | 3-M4*0.7P*4L | 3-M4*0.7P*6L | 4-M4*0.7P*8L | | 6-M5*0.8P*8L | 4-M6*1P*12L | 4-M6*1P*12L |
| | a | 0.2(±0.05) | | | $0.3(^{+0.05}_{-0.1})$ | | $0.5(^{-0}_{-0.2})$ | |
| | b | 4 | 5 | 5 | 7 | 7 | 10 | 12 |
| | t1 | 1.8 \| 2.3 | 2.3 \| 2.3 | 2.3 \| 3.3 | 3.3 \| 3.3 | 3.3 \| 3.8 | 3.8 \| 3.8 | 3.8 \| 5 |
| | t2 | 1.8 | 2.3 | 2.3 | 3.3 | 3.3 | 3.8 | 3.8 |

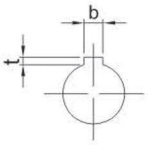
TENSION CONTROL SYSTEM FOR REWINDING AND UNWINDING

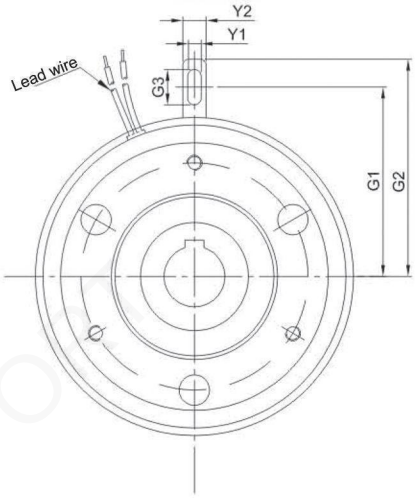
# MCS MODEL INTERNAL BEARING-TYPE MAGNETIC CLUTCH

## Use

Connection, cutting, variable speed, inch movement, forward reversal, high frequency operation, overload protection, etc.




## Parameters

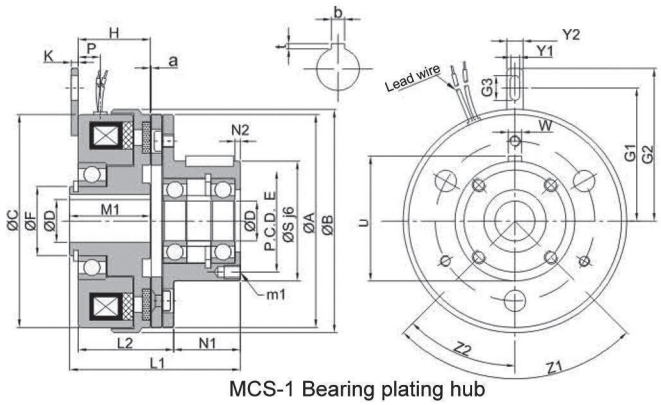
▶Rated voltage:DC24V

| MOTEL | | MCS-006 | MCS-015 | MCS-025 | MCS-050 | MCS-100 | MCS-200 | MCS-400 |
|---|---|---|---|---|---|---|---|---|
| Dynamic friction torque[kgm](Nm) | | 0.6(6) | 1.5(15) | 2.5(25) | 5.0(50) | 10(100) | 20(200) | 40(400) |
| Static friction torque[kgm](Nm) | | 0.5(5) | 1.0(10) | 2.0(20) | 4.0(40) | 8(80) | 16(160) | 32(320) |
| Powder[DC24V](W)at20℃ | | 11 | 15 | 20 | 25 | 35 | 45 | 60 |
| Weight(kg) | | 1.0 | 1.5 | 2.5 | 4 | 7 | 11 | 21 |
| Maximum speed(r/min) | | 1800 | | | | | | |
| | | | | | | | | |
| Radial Direction | A1 | 63 | 80 | 100 | 125 | 160 | 200 | 250 |
| | A2 | 46 | 60 | 76 | 95 | 120 | 158 | 210 |
| | A3 | 34.5 | 41.5 | 51.5 | 61.5 | 79.5 | 99.5 | 124.5 |
| | B | 67.5 | 85 | 106 | 133 | 169 | 212.5 | 264 |
| | C | 67.5 | 85 | 106 | 133 | 169 | 212.5 | 264 |
| | D | 12 | 15 | 20 | 25 | 30 | 40 | 50 |
| | F | 20 | 25 | 30 | 40 | 50 | 65 | 80 |
| | H | 24 | 26.5 | 30 | 33.5 | 37.5 | 50 | 65 |
| | K | 2 | 2 | 2 | 2 | 3.2 | 3.2 | 4 |
| | L1 | 31 | 34.5 | 39.5 | 44.5 | 50.5 | 60.5 | 77.5 |
| | L2 | 28 | 31 | 36 | 40.5 | 46.5 | 55.5 | 64 |
| | M | 27 | 29.5 | 34 | 37.5 | 42 | 50 | 65 |
| | P | 7.5 | 8 | 9 | 9 | 11.5 | 12.5 | 13 |
| | V1 | 3-3.1 | 3-4.1 | 3-5.1 | 3-6.1 | 3-8.1 | 3-10.2 | 4-12.2 |
| | V2 | 6.3 | 8 | 10.5 | 12 | 15 | 18 | 18 |
| | V3 | 5 | 6.2 | 8 | 10 | 13 | 15 | 16 |
| | X | 1 | 1.2 | 1.5 | 1.8 | 3.2 | 3.5 | 4 |
| | a | 0.2(±0.05) | | | $0.3(^{+0.05}_{-0.1})$ | | $0.5(^{-0}_{-0.15})$ | |
| Axis Direction | G1 | 42.5 | 57.5 | 62.5 | 77.5 | 100 | 115 | 140 |
| | G2 | 50 | 65 | 70 | 85 | 112 | 135 | 160 |
| | G3 | 9.5 | 10.5 | 11.5 | 11.5 | 18.5 | 20 | 20 |
| | Y1 | 4.5 | 5.5 | 6.5 | 6.5 | 9 | 10.5 | 10.5 |
| | Y2 | 14 | 16 | 16 | 16 | 25 | 35 | 40 |
| | b | 4 | 5 | 5 | 7 | 7 | 10 | 12 |
| | t | 1.8 | 2.3 | 2.3 | 3.3 | 3.3 | 3.8 | 3.8 |

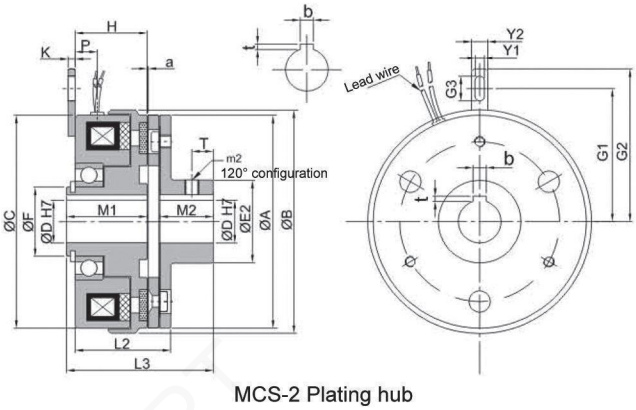
# MCS-1/MCS-2 MODEL INTERNAL BEARING-TYPE MAGNETIC CLUTCH

## Use

Connection, cutting, variable speed, inch movement, forward reversal, high frequency operation, overload protection, etc.




MCS-1 Bearing plating hub




MCS-2 Plating hub

## Parameters

▶Rated voltage:DC24V

| MOTEL | | MCS-1(-2)-006 | MCS-1(-2)-015 | MCS-1(-2)-025 | MCS-1(-2)-050 | MCS-1(-2)-100 | MCS-1(-2)-200 | MCS-1(-2)-400 |
|---|---|---|---|---|---|---|---|---|
| Dynamic friction torque[kgm](Nm) | | 0.6(6) | 1.5(15) | 2.5(25) | 5.0(50) | 10(100) | 20(200) | 40(400) |
| Static friction torque[kgm](Nm) | | 0.5(5) | 1.0(10) | 2.0(20) | 4.0(40) | 8(80) | 16(160) | 32(320) |
| Powder[DC24V](W)at20℃ | | 11 | 15 | 20 | 25 | 35 | 45 | 60 |
| Weight(kg) | | 0.7(0.54) | 1.23(0.95) | 2.18(1.73) | 3.93(3.18) | 8.1(5.6) | 12.3(9.8) | 23.5(17.5) |
| Maximum speed(r/min) | | 1800 | | | | | | |
| Radial Direction | A | 63 | 80 | 100 | 125 | 160 | 200 | 250 |
| | B | 67.5 | 85 | 106 | 133 | 169 | 158 | 264 |
| | C | 67.5 | 85 | 106 | 133 | 169 | 212.5 | 264 |
| | D | 12 | 15 | 20 | 25 | 30 | 40 | 50 |
| | E1 | 33 | 37 | 47 | 52 | 62 | 74.5 | 101.5 |
| | E2 | 26 | 31 | 41 | 49 | 65 | 83 | 105 |
| | F | 20 | 25 | 30 | 40 | 50 | 65 | 80 |
| | H | 24 | 26.5 | 30 | 33.5 | 37.5 | 50 | 65 |
| | K | 2 | 2 | 2 | 2 | 3.2 | 3.2 | 4 |
| | L1 | 55 | 64.5 | 75 | 90.5 | 108.5 | 131.5 | 165 |
| | L2 | 31.5 | 35.5 | 41.5 | 46.5 | 54 | 64.5 | 75 |
| | L3 | 46 | 54.5 | 64.5 | 74.5 | 88.5 | 109.5 | 123 |
| | M1 | 27 | 29.5 | 34 | 37.5 | 42 | 50 | 65 |
| | M2 | 15 | 20 | 25 | 30 | 38 | 45 | 54 |
| | N1 | 20.5 | 26 | 30 | 40 | 50 | 60 | 70 |
| | N2 | 2 | 2 | 3 | 2 | 3 | 5 | 7 |
| | P | 7.5 | 8 | 9 | 9 | 11.5 | 12.5 | 13 |
| | S | 38 | 45 | 55 | 64 | 75 | 90 | 115 |
| | T | 6 | 8 | 10 | 12 | 15 | 18 | 22 |
| | a | 0.2(±0.05) | | | 0.3($^{+0.05}_{-0.1}$) | | 0.5($^{0}_{-0.15}$) | |
| Axis Direction | G1 | 42.5 | 57.5 | 62.5 | 77.5 | 100 | 115 | 140 |
| | G2 | 50 | 65 | 70 | 85 | 112 | 135 | 160 |
| | G3 | 9.5 | 10.5 | 11.5 | 11.5 | 18.5 | 20 | 20 |
| | U | 39.5 | 47 | 57 | 67 | 78 | 93.5 | 118.5 |
| | W | 4 | 5 | 5 | 7 | 7 | 10 | 12 |
| | Y1 | 4.5 | 5.5 | 6.5 | 6.5 | 9 | 10.5 | 10.5 |
| | Y2 | 14 | 16 | 16 | 16 | 25 | 35 | 40 |
| | b | 4 | 5 | 5 | 7 | 7 | 10 | 12 |
| | t | 1.8 | 2.3 | 2.3 | 3.3 | 3.3 | 3.8 | 3.8 |
| | m1 | 3-M4*0.7P | | 4-M4*0.7P | 6-M5*0.8P | | 6-M6*1.0P | |
| | m2 | 2-M4 | 2-M5 | | 2-M6 | 2-M8 | | 2-M10 |
| | Z1 | 4-90° | | | | | | |
| | Z2 | 60° | | 45° | | 30° | 45° | 225° |

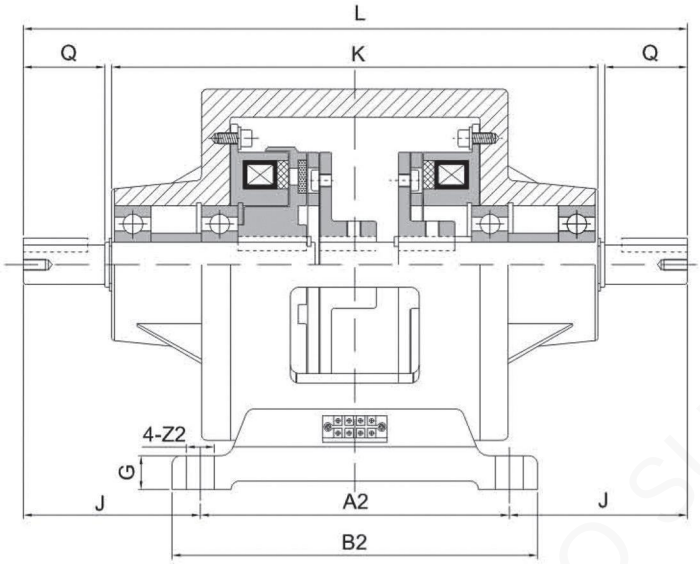
# ➲ FMP MODEL INTERNAL MAGNETIC CLUTCH AND BRAKE COMBINATION

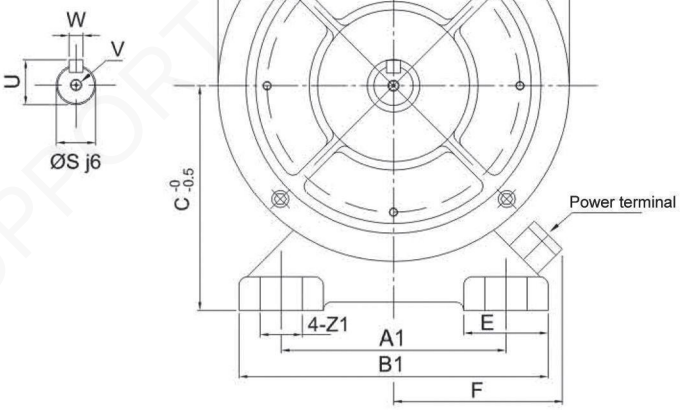
## Action principle

The rotor of the clutch is fixed on the input shaft, the armature of the clutch is coaxial with the brake to form the output shaft, and the stator and brake flange of the clutch are mounted on the frame. When the current through the clutch, the output shaft is driven: when the clutch power separation, brake current through, the output shaft will stop rotating.

## Use

Start, stop, inching, positioning, high frequency operation, etc.




## Parameters

▶Rated voltage:DC24V

| MOTEL | | FMP-006 | FMP-015 | FMP-025 | FMP-050 | FMP-100 | FMP-200 | FMP-400 |
|---|---|---|---|---|---|---|---|---|
| Dynamic friction torque[kgm](Nm) | | 0.6(6) | 1.5(15) | 2.5(25) | 5.0(50) | 10(100) | 20(200) | 40(400) |
| Static friction torque[kgm](Nm) | | 0.5(5) | 1.0(10) | 2.0(20) | 4.0(40) | 8(80) | 16(160) | 32(320) |
| Powder[DC24V](W)at20℃ | | 11 | 15 | 20 | 25 | 35 | 45 | 60 |
| Suspended load(kgf) | | 32 | 48 | 70 | 90 | 130 | 180 | 260 |
| Weight(kg) | | 2.1 | 4.2 | 6.8 | 12 | 22 | 49 | 90 |
| Maximum speed(r/min) | | 1800 | | | | | | |
| | | | | | | | | |
| Radial Direction | A1 | 65 | 80 | 105 | 135 | 155 | 195 | 245 |
| | B1 | 90 | 110 | 140 | 175 | 200 | 240 | 300 |
| | C | 65 | 80 | 90 | 112 | 132 | 160 | 195 |
| | D | 100 | 125 | 150 | 190 | 230 | 290 | 350 |
| | E | 27.5 | 32 | 35 | 42 | 45 | 47 | 50 |
| | F | 60 | 68 | 81 | 97 | 110 | 129 | 160 |
| | S | 11 | 14 | 19 | 24 | 28 | 38 | 42 |
| | U | 12.5 | 16 | 21 | 27 | 31 | 41.5 | 45.5 |
| | W | 4 | 5 | | 7 | | 10 | 12 |
| | Z1 | 13.5 | 15 | 20 | 24 | 28 | 28 | 34 |
| Axis Direction | A2 | 90 | 110 | 135 | 160 | 200 | 240 | 300 |
| | B2 | 105 | 130 | 160 | 185 | 230 | 270 | 340 |
| | G | 10 | 12 | 15 | 15 | 18 | 20 | 23 |
| | J | 48.5 | 63 | 80 | 108 | 145 | 188 | 236 |
| | K | 132 | 171 | 210 | 270 | 362 | 448 | 552 |
| | L | 187 | 236 | 295 | 376 | 490 | 616 | 772 |
| | Q | 25 | 30 | 40 | 50 | 60 | 80 | 110 |
| | V | M4*0.7P*8L | | M6*1P*11L | | | M10*1.5P*17L | |
| | Z2 | 6.5 | 9 | 11 | 11 | 14 | 14 | 17 |

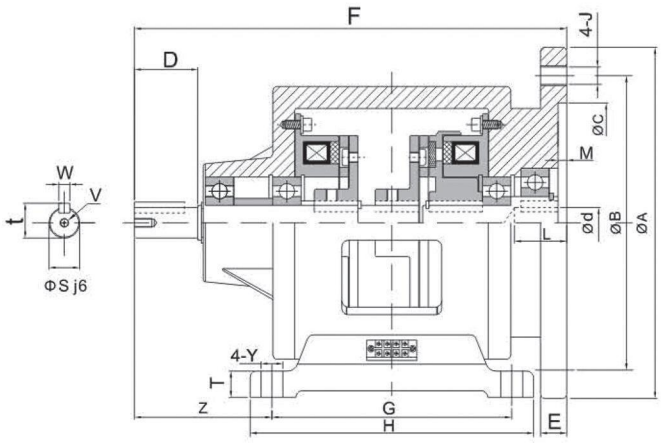
# MMP MODEL SINGLE MAGNETIC CLUTCH-BRAKE COMBINATION

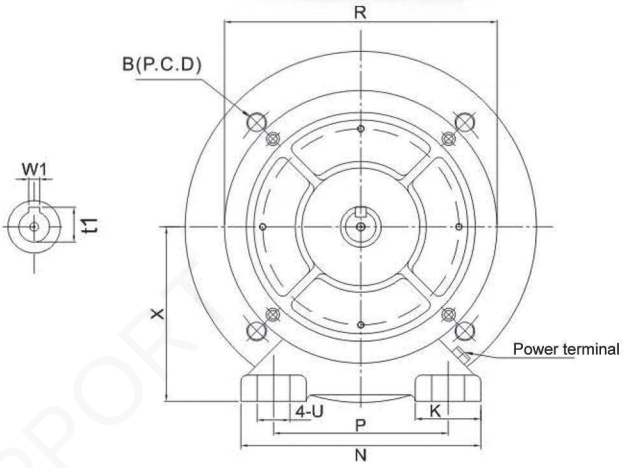
## Action principle

The rotor of the clutch is fixed to the input shaft and the armature plate and brake of the clutch are fixed to the output shaft. When there is a current through the clutch, the output shaft is driven; When the clutch is cut off and the brake has current, the output shaft will stop. Suitable for direct connection of motor, flange face with IEC international standard.

## Use

Start, stop, inching, positioning, high frequency operation, etc.




## Parameters

▶Rated voltage:DC24V

| MOTEL | | MMP-006 | MMP-015 | MMP-025 | MMP-050 | MMP-100 | MMP-200 |
|---|---|---|---|---|---|---|---|
| Dynamic friction torque[kgm](Nm) | | 0.6(6) | 1.5(15) | 2.5(25) | 5.0(50) | 10(100) | 20(200) |
| Static friction torque[kgm](Nm) | | 0.5(5) | 1.0(10) | 2.0(20) | 4.0(40) | 8.0(80) | 16(160) |
| Powder[DC24V](W)at20℃ | | 11 | 15 | 20 | 25 | 35 | 45 |
| Weight(kg) | | 2.6 | 5 | 9 | 15 | 25 | 48 |
| Maximum speed(r/min) | | 1800 | | | | | |
| Radial Direction | A | 160 | 160 | 200 | 200 | 250 | 300 |
| | B | 130 | 130 | 165 | 165 | 215 | 265 |
| | C | 110 | 110 | 130 | 130 | 180 | 230 |
| | J | M8 | | M10 | | M12 | |
| | V | M4*0.7P8L | | M6*1P*11L | | | M10*1.5P*17L |
| | R | 100 | 125 | 150 | 190 | 230 | 290 |
| | X | 65 | 80 | 90 | 112 | 132 | 160 |
| | T | 10 | 12 | 15 | 15 | 18 | 20 |
| | d | 11 | 14 | 19 | 24 | 28 | 38 |
| | S | 11 | 14 | 19 | 24 | 28 | 38 |
| Axis Direction | D | 25 | 30 | 40 | 50 | 60 | 80 |
| | E | 12 | | 15.5 | 15 | 13 | 16 |
| | F | 160 | 194.5 | 234.5 | 310.5 | 389 | 536 |
| | G | 90 | 110 | 135 | 160 | 200 | 240 |
| | H | 105 | 130 | 160 | 185 | 230 | 270 |
| | K | 27.5 | 32 | 35 | 42 | 46 | 47 |
| | L | 27 | 32 | 42 | 52 | 62 | 82 |
| | M | 5 | | | | 6 | |
| | N | 90 | 110 | 140 | 175 | 200 | 240 |
| | P | 65 | 80 | 105 | 135 | 155 | 195 |
| | U | 13.5 | 15 | 20 | 24 | 28 | 28 |
| | Y | 6.5 | 9 | 11 | | 14 | |
| | Z | 48.5 | 63 | 80 | 108 | 145 | 188 |
| | W | 4 | 5 | 6 | 7 | | 10 |
| | t | 12.8 | 16.3 | 21.8 | 27.3 | 31.3 | 41.8 |
| | W1 | 4 | 5 | 6 | 8 | | 10 |
| | t1 | 12.5 | 16 | 21.5 | 27 | 31 | 41.5 |

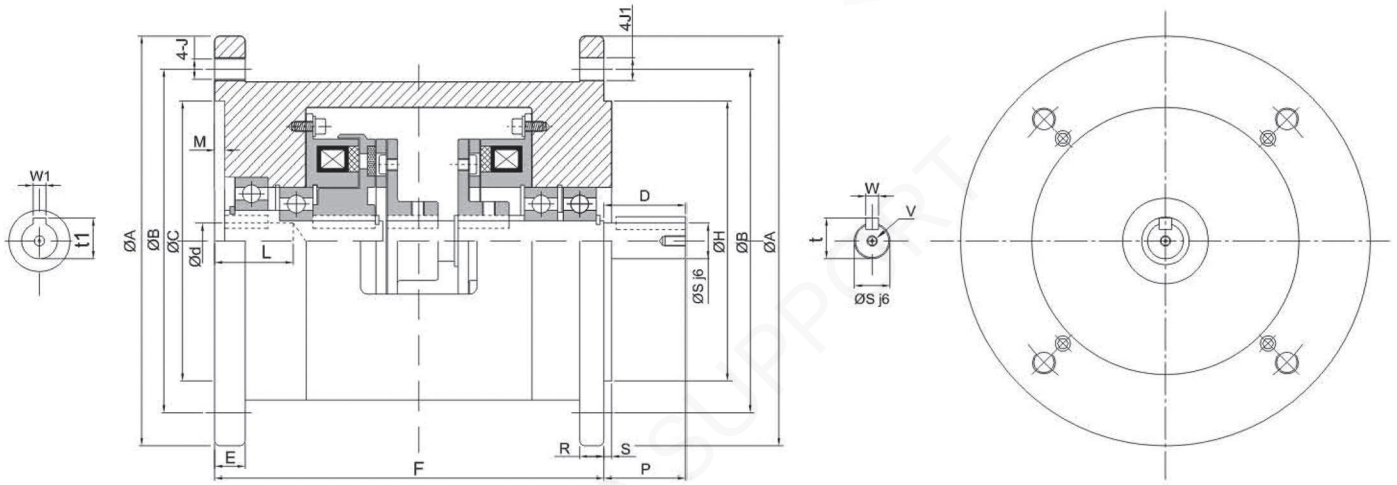
# ➲ TMP MODEL INTERNAL MAGNETIC CLUTCH AND BRAKE COMBINATION

## Action principle

The rotor of the clutch is fixed on the input shaft and the armature plate and brake plate of the clutch are fixed on the output shaft. When there is a current through the clutch, the output shaft is driven; When the clutch is cut off and the brake has current, the output shaft will stop.

## Use

Start, stop, inching, positioning, high frequency operation, etc.




## Parameters

▶Rated voltage:DC24V

| MOTEL | | TMP-006 | TMP-015 | TMP-025 | TMP-050 | TMP-100 | TMP-200 |
|---|---|---|---|---|---|---|---|
| Dynamic friction torque[kgm](Nm) | | 0.6(6) | 1.5(15) | 2.5(25) | 5.0(50) | 10(100) | 20(200) |
| Static friction torque[kgm](Nm) | | 0.5(5) | 1.0(10) | 2.0(20) | 4.0(40) | 8(80) | 16(160) |
| Powder[DC24V](W)at20℃ | | 11 | 15 | 20 | 25 | 35 | 45 |
| Weight(kg) | | 2.5 | 4.8 | 8.5 | 14 | 24 | 47 |
| Maximum speed(r/min) | | 1800 | | | | | |
| Radial Direction | A | 160 | 160 | 200 | 200 | 250 | 300 |
| | B | 130 | 130 | 165 | 165 | 200 | 240 |
| | C | 110 | 110 | 130 | 130 | 180 | 230 |
| | H | 110 | 110 | 130 | 130 | 180 | 230 |
| | J | M8 | | M10 | | M12 | |
| | J1 | 10 | | 12 | | 14 | |
| | d | 11 | 14 | 19 | 24 | 28 | 38 |
| | S | 11 | 14 | 19 | 24 | 28 | 38 |
| | D | 25 | 30 | 40 | 50 | 60 | 80 |
| Axis Direction | E | 25 | 12 | 15.5 | 15 | 13 | 16 |
| | F | 131 | 150 | 175.5 | 241.5 | 285 | 456 |
| | L | 27 | 32 | 42 | 52 | 62 | 82 |
| | M | 5 | | | | 6 | |
| | P | 25 | 30 | 40 | 50 | 60 | 80 |
| | R | 9 | 9.5 | 12 | 11 | 9 | 12 |
| | S | 3.5 | | | | | 4 |
| | W | 4 | 5 | 6 | 8 | | 10 |
| | t | 12.8 | 16.3 | 21.8 | 27.3 | 31.3 | 41.8 |
| | W1 | 4 | 5 | 6 | 8 | | 10 |
| | t1 | 12.5 | 16 | 21.5 | 27 | 31 | 41.5 |

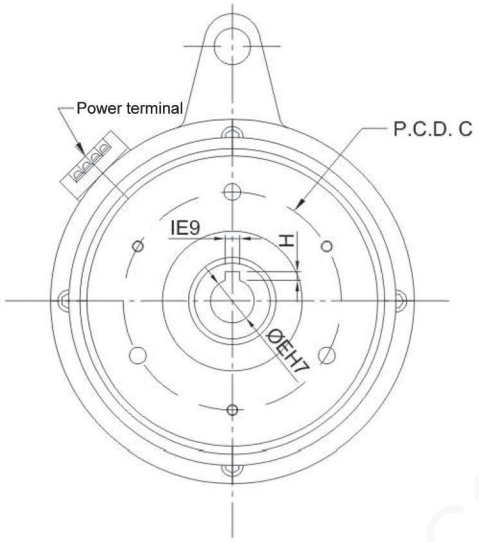
# SMP MODEL INTERNAL MAGNETIC CLUTCH AND BRAKE COMBINATION

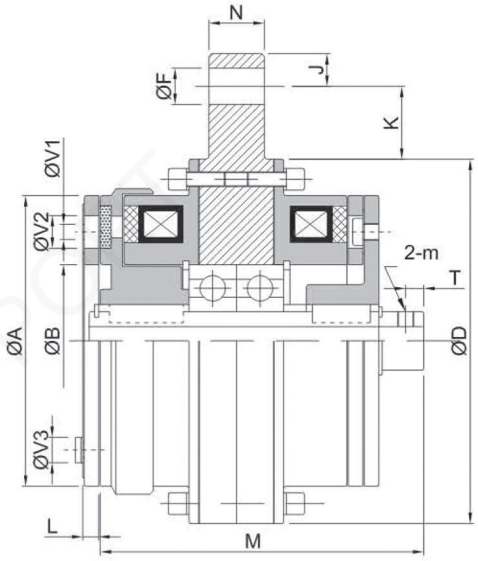
## Action principle

The rotor and brake of the clutch are fixed on the output shaft, and the armature plate of the input shaft is fixed on the input flywheel. When there is a current through the clutch, the flywheel drives the output shaft. When the clutch is separated, the brake is connected with the current, and the output shaft stops.

## Use

Start, stop, inching, positioning, high frequency operation, etc.




## Parameters

▶Rated voltage:DC24V

| MOTEL | | SMP-015 | SMP-025 | SMP-050 | SMP-100 | SMP-200 | SMP-400 |
|---|---|---|---|---|---|---|---|
| Dynamic friction torque[kgm](Nm) | | 1.5(15) | 2.5(25) | 5.0(50) | 10(100) | 20(200) | 40(400) |
| Static friction torque[kgm](Nm) | | 1.0(10) | 2.0(20) | 4.0(40) | 8.0(80) | 16(160) | 32(320) |
| Powder[DC24V](W)at20℃ | | 15 | 20 | 25 | 35 | 45 | 60 |
| Weight(kg) | | 3 | 4.5 | 6 | 13.5 | 23 | 41.5 |
| Maximum speed(r/min) | | 1800 | | | | | |
| | | | | | | | |
| Radial Direction | A | 80 | 100 | 125 | 160 | 200 | 250 |
| | B | 42 | 52 | 62 | 80 | 100 | 125 |
| | D | 100 | 125 | 150 | 190 | 230 | 290 |
| | F | 10 | 10 | 12 | 15 | 18 | 21 |
| | J | 9 | 11 | 13 | 18 | 20 | 25 |
| | K | 20 | 25 | 30 | 37 | 44 | 50 |
| | V1 | 3-4.1 | 3-5.1 | 3-6.1 | 3-8.1 | 3-10.2 | 4-12.2 |
| | V2 | 3-8 | 3-10.5 | 3-12 | 3-15 | 3-18 | 4-22 |
| | V3 | 3-7 | 3-9 | 3-10.5 | 3-14 | 3-17 | 4-19 |
| Axis Direction | C | 60 | 76 | 95 | 120 | 158 | 210 |
| | E | 12 | 20 | 25 | 35 | 40 | 48 |
| | H | 1.8 | 2.3 | 3.3 | 3.8 | | |
| | I | 4 | 5 | 7 | 10 | | 12 |
| | L | 4.6 | 5.6 | 6.8 | 9.4 | 11.8 | 13.1 |
| | M | 97 | 106.2 | 115.5 | 148 | 154.5 | 180 |
| | N | 15 | 16 | 20 | | | 30 |
| | T | 8 | | | 12 | | |
| | m | M6 | | | M8 | | |

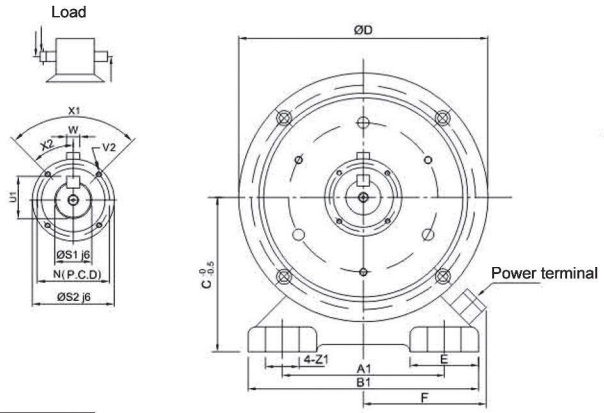
# FMT MODEL INTERNAL MAGNETIC CLUTCH AND BRAKE COMBINATION

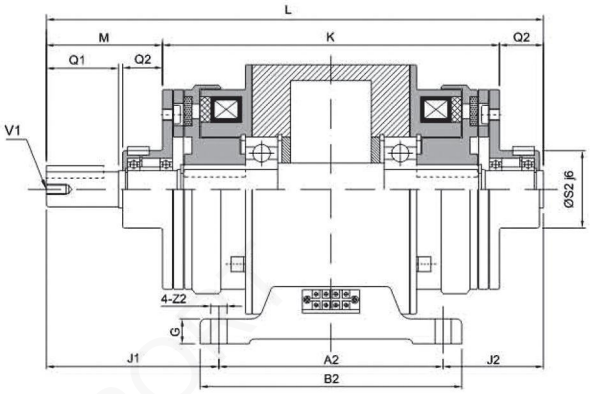
## Action principle

The rotor of the clutch on both sides is fixed on the output shaft, and the bearing guide seat of the clutch is arranged on the output shaft. When the right side of the clutch through the current output shaft will be driven; When the power off on the right side of the clutch can be separated, the output shaft will stop running; When the left clutch has a current through the output shaft is driven, the left power clutch will be separated, the output shaft will stop.

## Use

It is used for transmission and distribution of variable speed combination at both ends and positive and negative rotation combination.




## Parameters

▶Rated voltage:DC24V

| MOTEL | | FMT-006 | FMT-015 | FMT-025 | FMT-050 | FMT-100 | FMT-200 | FMT-400 |
|---|---|---|---|---|---|---|---|---|
| Dynamic friction torque[kgm](Nm) | | 0.6(6) | 1.5(15) | 2.5(25) | 5.0(50) | 10(100) | 20(200) | 40(400) |
| Static friction torque[kgm](Nm) | | 0.5(5) | 1.0(10) | 2.0(20) | 4.0(40) | 8(80) | 16(160) | 32(320) |
| Powder[DC24V](W)at20℃ | | 11 | 15 | 20 | 25 | 35 | 45 | 60 |
| Load(KG) | | 14 | 25 | 45 | 70 | 100 | 180 | 260 |
| Weight(kg) | | 1.5 | 2.7 | 5.5 | 9.6 | 18.5 | 35 | 64 |
| Maximum speed(r/min) | | 1800 | | | | | | |
| | | | | | | | | |
| Radial Direction | A2 | 75 | 90 | 110 | 135 | 160 | 200 | 240 |
| | B2 | 95 | 105 | 130 | 160 | 185 | 230 | 270 |
| | G | 10 | 10 | 12 | 15 | 15 | 18 | 20 |
| | J1 | 65.5 | 78.5 | 98 | 121 | 149 | 187 | 238 |
| | J2 | 40.5 | 40.5 | 62 | 74 | 90 | 117 | 154 |
| | K | 111.5 | 133 | 162 | 193 | 232 | 290 | 350 |
| | L | 181 | 217 | 266 | 327 | 397 | 492 | 603 |
| | M | 46.5 | 56.5 | 72 | 92 | 113 | 142 | 183 |
| | Q1 | 25 | 30 | 40 | 50 | 60 | 80 | 110 |
| | Q2 | 20 | 25 | 30 | 40 | 50 | 60 | 70 |
| | V1 | M4*0.7P*8L | | M6*1P*11L | | | M10*1.5P*17L | |
| | Z2 | 6.5 | 6.5 | 9 | 11 | 11 | 14 | 14 |
| Axis Direction | A1 | 52.5 | 65 | 80 | 105 | 135 | 155 | 195 |
| | B1 | 80 | 90 | 110 | 140 | 175 | 200 | 240 |
| | C | 55 | 65 | 80 | 90 | 112 | 132 | 160 |
| | D | 80 | 100 | 125 | 150 | 190 | 230 | 290 |
| | E | 27.5 | 27.5 | 32 | 35 | 42 | 45 | 47 |
| | F | 57 | 60 | 68 | 81 | 97 | 110 | 129 |
| | N | 33 | 37 | 49 | 56 | 65 | 79 | 101.5 |
| | S1 | 11 | 14 | 19 | 24 | 28 | 38 | 42 |
| | S2 | 38 | 45 | 55 | 64 | 75 | 90 | 115 |
| | U1 | 12.5 | 16 | 21 | 27 | 31 | 41.5 | 45.5 |
| | U2 | 39.5 | 47 | 57 | 67 | 78 | 93.5 | 118.5 |
| | V2 | M4*0.7P*6L | | M4*0.7P*8L | | M6*1P*12L | | |
| | W | 4 | 5 | | 7 | | 10 | 12 |
| | X1 | 3-120° | | 4-90° | | | | 8-45° |
| | X2 | 60° | | 45° | | | | 22.5° |
| | Z1 | 13.5 | 13.5 | 15 | 20 | 24 | 28 | 28 |