

EB MOTOR (EXCITING BRAKE MOTOR)

The Fuji SB (self-brake) motor has found wide use in applications requiring frequent on-off switching, rapid starting and stopping, turning off high-inertia machinery on short notice, etc., and has been well received by its users.

Introduced below is the Fuji EB (exciting brake) motor, a newly developed motor especially suitable for use with machine tools. In the EB motor, the brake—the most vital part in a brake motor—is an exciting type, making the most efficient use of strong magnetic attraction generated by dc.

The braking torque of the EB motor is adjustable in many steps and has excellent braking efficiency, making the motor quite durable in operations requiring constantly repeated on-and-off switching.

The Fuji EB motor also features small size, light weight, and easy mounting.

Features

1) Easy installation

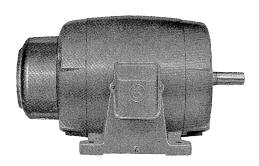
Motor and brake are contained in one unit; no common bed is needed, enabling easy installation. Since its dimensions conform to both JIS and JEM, its interchangeability with ordinary general-purpose motors is assured.

2) Compact and light

Since the motor conforms to JIS and JEM standard dimensions, it is small and light. Also, the use of a single plate disk for the brake decreases its size and weight.

3) High braking torque, applicable to frequent onoff operation

The dc exciting brake system, by utilizing the magnetic attraction force for the braking force, can attain higher braking torque than an ac brake with the same rating.



It can withstand 450 on-off switchings per hour; the magnet can be used with a continually varying electric current.

4) Any desired braking torque is at your immediate command

Because of the exciting brake system, the desired braking torque can be freely selected from a wide range by changing the applied voltage.

5) Long life, requiring no adjustment

The rubber molded brake lining is durable under heavy use and is non-abrasive. It is therefore semi-permanent, with a life expectancy of about one million times. Since it is equipped with an automatic gap-adjustting device, a constant distance of shaft motion is maintained without adjustment as the friction surface wears down.

6) Reliable action and quiet operation

The brake design is simple in construction for the convenience of mass production. Its accuracy of manufacture is fully controlled, assuring uniform quality and precise operation. Also, due to the use of a dc exciting brake system, there is no magnetic hum or vibrational noise.

Operation is very quiet and there is no shock upon starting the motor.

7) Versatile coupling

As a brake disk is used, unlike motors with coneshaped brakes, any coupling method can be performed as it stands, without moving the motor shaft.

8) Versatile mounting

Both motor and brake have drip-proof construction. By a simple change in assembly, the vent holes can be faced in any direction; up, down, left, right or obliquely.

Consequently, any desired mounting position is possible, without sacrificing protective features. The value of the braking torque is the same, whether the shaft is mounted vertically, obliquely, or horizontally.

9) Powerful brake with low power consumption

The small-size magnet used in the brake has very low power requirements.

Specifications

Output range: 0.4~15 kw (4 poles)

 $0.2 \sim 11 \text{ kw } (6 \text{ poles})$

Range of braking torque: 1.5~12 kgm

Voltage: 200 v Frequency: 50/60 c/s

Protective construction: Drip-proof construc-

tion

Power Supply Equipment

The braking torque of this EB motor can be adjusted by altering the voltage applied to the brake coil in the range of $40 \sim 80 \text{ v}$ dc. Thus a rectifier is needed when operating from ordinary factory current. Rectifier power supply equipment is available at extra cost.

(By I. Ichikawa, General Use Electric Machine Dept.)

S-SERIES TELEPERM CONTROLLER

The S-SERIES TELEPERM high performance controllers can be pressed into service in the entire range, slow response temperature control to quick response pressure and flow control.

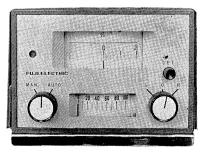
The controller's self-contained setter and a selector are capable of accepting either $10 \sim 50$ ma dc of TELEPERM unified signal current or direct input (e.g., from resistance bulb, thermocouple, etc.).

Depending upon the nature of the process, two types of S-SERIES TELEPERM controller, S controller (S-ECS) and C controller (S-ECC), are available.

The controllers are further classified into standard (N-type) for panel operation and divided (D-type) for desk operation.

The draw-out system employed in the S-SERIES TELEPERM controllers permits a variety of operations to be performed from the front of the panel, thus enabling easy handling.

The outer dimensions of 160 mm are designed for compatibility with the other S-SERIES panel instruments.



S controller, Model S-ECS-N

Thus other S-SERIES indicators and recorders can share the same panel arrangement.

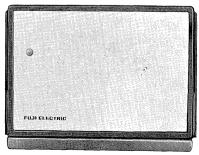
I. S-SERIES TELEPERM S CONTROLLER [MODEL: S-ECS-N, (D)]

The S-SERIES TELEPERM S controller is an indicating controller with pulse output for the control of electric motor drive actuators. Based on an ON-OFF control system with feedback circuitry, the controller drives a final control element electric motor in the normal or reverse direction by means of output relays actuated by either a normal or reverse kipp amplifier (depending upon the polarity of the deviation).

Features

1) Unique control is possible due to the pulse output. It can be used independently as an indicating controller.

Direct input is possible.



Divided type controller, Model S-ECS(C)-D