Operating manual

Brake accessories for Asynchronous Motors

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This operating manual is a supplement to the "STÖBER Asynchronous Motors" and "Brakes STÖBER for Asynchronous Motors" operating manuals.

The following information is intended only to supplement them, when this model is installed.

1 Manual release (optional)

The addition of a manual release makes it possible to release the brake manually. After being actuated, it returns to the starting position.

WARNING!

Secure all moving machine parts when working on the

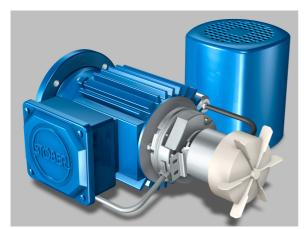
For brakes with an additional manual release, watch the brake closely for wear.

On brakes with a manual release, it is possible that the brake will no longer completely close when the wear limit has been reached, so that the full braking torque cannot be built up. When adjusting the brake or replacing brake parts, the manual release has to be re-adjusted and inspected.

NOTICE

When adjusting the brake or replacing brake parts, the manual release has to be re-adjusted and inspected.

Set the mounting screws of the manual release so that when the maximum wear is reached the screw head of the manual release is not yet at the armature disc ($L_h > L_{max}$; see Fig. 1-1: Manual release and temperature monitor).



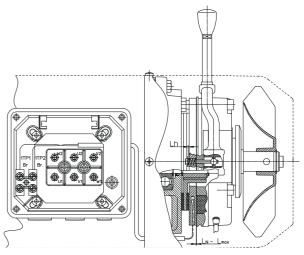


Fig. 1-1: Manual release and temperature monitor

2 Temperature-monitored springactuated brake

High switching cycles with a high speed and a high mass moment of inertia can result in a heat build-up in the friction lining. The heat cannot be dissipated quickly enough.

This causes burns on the friction lining, melting of the plastic lining support, overheating of the B-side motor bearing. The latter can result in failure of the brake due to lubricant leaking from the bearing.

The installation of a PTC thermistor detector (limit temperature: 130°C) the temperature is monitored and the motor is switched off when the nominal functioning temperature is reached.

The sensor is installed directly in the friction surface area and is guided in the terminal box on luster terminals (see figure above). It is controlled by a thermistor triggering device (e.g. Calomat CK 111 or CK 142) or a drive controller.

Microswitch

The microswitch is available for motors of size 112 and higher (braking torque: 60 Nm) for release control or wear control. Establish the required electrical connection according to Fig. 3-1: Release control respectively Fig. 3-2: Wear control. With the release control, the motor does not start until the brake has released.

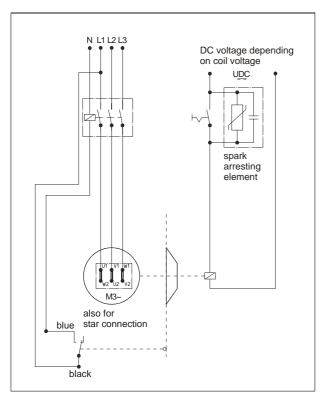
This circuit design monitors all errors. For example, the motor will not start if there is a defective rectifier, a broken connecting wire, a defective coil or the release path is too large.

For the wear control, the brake and motor remain deenergized if the release path is too large.

See also commissioning instructions / microswitch setting instructions.

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Fig. 3-1: Release control

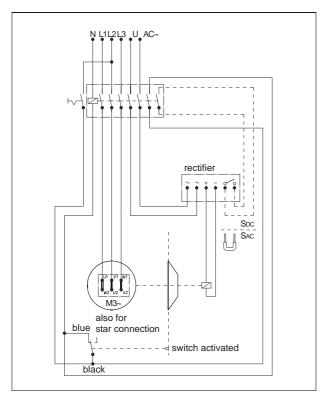


Fig. 3-2: Wear control

4 Brass foil (optional)

The installation of the brass foil changes the switching times for the brake.

The values specified in the technical data refer to the standard model without a brass foil.

NOTICE

Note that the changed switching times due to use of the brass foil can result in damage to the machine.

5 Corrosion protection (CORO 3)

The brakes are corrosion-protected by galvanized coil elements and mounting screws, in addition to plated armature discs (CORO 1).

mproved corrosion protection is achieved by gas-nitrided friction plate discs in combination with a cover ring and shaft seal ring (CORO 3).

This design prevents not only the penetration of splash water and dust into the brake, but also the distribution of the friction dust on the outside of the brake.