

Operating Instructions:

These Operating Instructions apply to:

Netter

Brake Unit BZ 70

Netter GmbH refuses to accept any responsibility for bodily injury or property damage resulting from non-compliance to the notes and instructions contained in these Operating Instructions.

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1 CE-Regulations

This brake unit is in accordance with CE-Regulations 73/23/EEC and 89/336/EEC.

2 Unpack

- Check whether or not there are any transport defects.
- Check whether or not the specifications on the rating plate are in accordance with your order.

If the unit is not installed immediately, keep it dry and dust-free in the original packing.

3 General Notes

Brake units are used for braking three-phase asynchronous motors.

They are no safety devices. Electronic brake units brake motors only with existing supply voltage. They are ineffective if there is a power failure.

Do not use a brake unit for lifting installations without a mechanic locking brake.

4 EMC-Directive

The brake units are produced and tested in accordance with the necessary CE-regulations of approbation. The brake units are in accordance with the VDE approbation VDE 0160 Teil 2/10.75.

The brake units are produced and tested in accordance with the necessary regulations of approbation. The brake units are in accordance with the EMC-directive IEC 947-4-2.

The brake units are tested by TÜV-Südwest. Each unit is marked with a CE-label.

The interference output of the brake units remains under the limit of the VDE-Richtlinie VDE 0875, Teil 3, Funkentstörgrad G when this filter is attached: A choke coil in combination with a 1 μ F capacitor on the terminal a,8.

5 Assembly

1. The brake unit is designed for mounting in a control cabinet. The ambient temperature should not drop below or exceed the allowable temperature range of 0°C to +40°C.
2. The minimum distance to the cabinet's surface has to be 10 cm above and below as well as 5 cm at the sides. This guarantees a sufficient ventilation. Keep the ventilation openings free.

3. Avoid mounting places with:

- ⇒ vibration ⇒ metal parts
- ⇒ heat ⇒ dust
- ⇒ dampness ⇒ electromagnetic sources

4. Enough light and space have to be provided for assembly, operating and servicing.

5. Use an insulating floor plate by working on electrical installations.

6. The operating personnel must get a careful introduction.

7. Technical modifications to the printed circuits, the power electronics and the casing are strictly prohibited.

8. Do not exceed the nominal values of the unit.

9. Please follow all precautions and warnings.

6 Check

Before the unit is connected to the mains, the following items should be observed.

1. The power supply must be connected to contact a,8. Connecting the power supply to other contacts will damage the brake unit.

2. The supply voltage has to be within the tolerance.

Make sure, that no short-circuit or a ground-contact is in existence. The brake units are not firm against short-circuits.

7 Commissioning

Before releasing the electrical drive-system for operation, the system has to be checked by a specialist.

Attention

- PC-board and terminals are under high voltage
- Do mount cooling ribs vertically
- Long leads should be avoided
- Use ohmmeters or multimeters for measuring
- Do not use a test lamp or bell

8 Currentfree operation

- Remove motor fuses
- Adjust time-potentiometer "T" at its maximum (clockwise)
- Adjust current-potentiometer "I" at its minimum (counter-clockwise)

9 Switchlock check

| | | |
|-----------------|-----------------------------------|-----------------------------------|
| motor switch K1 | on | off |
| brake switch K2 | off | K1 locked |
| locking check | K2 manually on: ⇒ K1 drops off | K1 manually on: ⇒ K2 drops off |

10 Brake-current adjustment

- Install motor-fuses and adjust time-potentiometer "T" at $\frac{1}{4}$.
- When the motor is warm activate the brake and turn the current-potentiometer "I" slowly clockwise; observe the amount of current at the bar-graph-display. One bar-line lights for 10% of device-current. The maximum value for brake current is 3 times of the nominal motorcurrent. During brake operation the states "brake on" B and "stoppage detector" S are indicated by the LED's B and S. B indicates that contactor K2 at terminal 4 is activated and S shows the function of the stoppage detector.
- When motorspeed has reduced at 10% of nominal speed LED S is off and an internal time process is started.
- The manually adjusted time will be added.
- LED "O" Overflow is flashing if the heatsink of the brake unit has become too hot because of a large number of brakings within a short time. As long as it is overheated, motorstarting is locked.

11 Choice of fuses

The two fuses have to protect the motor against overload. Therefore the fuses have to suit to the motor:

Fuse = 150% of the motor current.

12 Choice of the brake contactor

Brake contactor = motor contactor. The ON- and OFF of the brake contactor operates without any load.

13 Circuit proposal

