

# Instructions for storage of motors

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## **For prolonged storage of electric motors (e.g. spare motors), the following precautions must be observed:**

The motor must not be subject to any external vibrations at standstill so as to avoid causing damage to the bearings.

Make sure that they are kept in a dry and dust free place, ambient temperature +10° C to +40° C, relative humidity < 50 %.

Unprotected machined surfaces (shaft-ends and flanges) should be treated against corrosion.

### **Rotor locking device**

On motors with roller bearings, fix the rotor in place by means of the locking device, to protect the bearings against damage due to vibration.

### **Check before commissioning:**

#### **Bearings**

Before commissioning a motor that has been stored for more than 4 years, check the bearings.

For motors without regreasing device, grease has to be renewed or bearings have to be changed after 2 years at the latest.

*N.B. Even minor corrosion can considerably shorten the service life of the bearings. Bearings that need not be replaced should be packed with new grease.*

Motors with regreasing device have to be regreased after 2 years at the latest with the double required quantity of grease. When motors are stored for over 4 years, change grease.

The rotor has to be rotated every month by approx. 30 degrees, in order to avoid compression spots on the bearings due to static load.

#### **Insulation resistance**

*N.B. Before commissioning check the insulation resistance. With values  $\geq 1k\Omega$  per Volt rated voltage, dry the winding*

Check the insulation resistance of each phase against earth until the measured value is constant. The insulation resistance of new windings is above 10 M $\Omega$ .

If, at room temperature, the resistance is below 0.5 M $\Omega$ , the winding must be dried. In this case the winding temperature must not exceed 80°C. For drying connect the space heater or another heating device, or apply an AC voltage of 5 or 6 % (connect in delta) of the rated motor voltage to terminals U1 and V1. Repeat the measurement. The motor can be put into operation when the resistance is above 0.5 M $\Omega$ .

Anti-condensation heaters, if fitted, are recommended to be used to avoid water condensing in the motor.