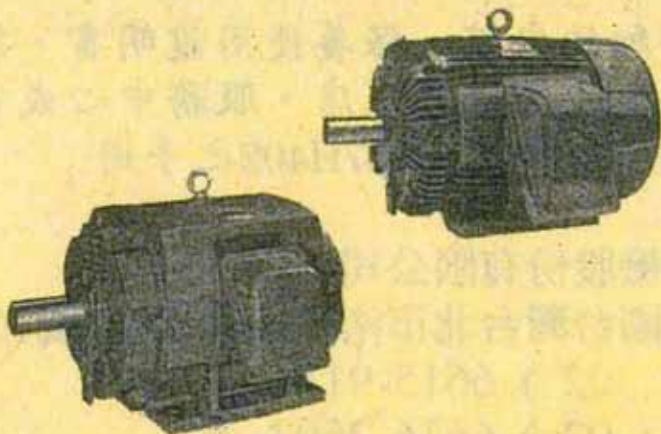


TECO

**DANGER AND WARNING IN APPLICATION
OF ELECTRIC INDUCTION MOTOR**



TECO Elec. & Mach. Co., Ltd.

INSTALLATION & MAINTENANCE INSTRUCTIONS

This instruction manual is for **TECHNICAL USE ONLY**, NOT FOR COMMERCIAL PURPOSE. The warranty is limited to coverage expressed in your sales contract. Documentation of storage, transportation, installation and examination, if required, shall be inquired of TECO's service center before start and maintenance.


BEFORE INSTALLATION & USE

1. Ensure nameplate data corresponds with your requirements
2. Ensure the motor is undamaged
3. Remove any shaft clamp (but refit prior to transportation)
4. Slowly rotate the shaft to ensure free movement
5. Ensure the mounting/shaft orientation design and drain hole positions are correct for the application
6. Eyebolt(s) and any other lifting means must be tight before use



WARNING




The following safety precautions must be observed:

1.  Electric rotating machinery and electricity can cause serious or fatal injury if the motor is improperly installed, operated or maintained. Responsible personnel must be fully trained to understand the hazards to themselves and others before being involved in installing, operating,







maintaining and decommissioning electric motors. European Union Safety information can be obtained from such as:

EN60204-1;FEN60034;FEN292;FEN294;FIEE Wiring Regulations






Particular industries and countries have further safety requirements. Refer to their trade & safety bodies.

2.  Baseefa Ex n Certification Products Special Conditions For Safe Use
 - a. All terminal nuts and screws, whether used or not, shall be correctly tightened.
 - b. Supply connections shall be made with ring type terminal lugs which have insulated shanks . Clearance distances shall not be reduced when tightening connections.
 - c. On auxiliary terminals the conductor insulation shall extend to within 1mm of the terminal throat.
 - d. There shall be no loose conductor strands on any terminal.
 - e. The drain plugs (when fitted) shall be replaced immediately after use and sealed with an appropriate sealing compound.
 - f. The brass terminal links shall be connected correctly so as not to reduce the clearance distances.
3.  When servicing, all power sources to the motor and to the accessory devices should be de-energized and disconnected and all rotating parts at standstill.
4.  Lifting means, such as eyebolts, on the motor are


for lifting only the motor itself. Assemblies which are not part of the motor must be removed prior to using the motor lifting means. When more than one lifting means is provided on the motor, all must be used together, for instance by attaching a supporting chain to each, to share the load. Ensure that lifting means are fully attached to the motor before lifting.

5.  Suitable ear protection must be worn near machinery emitting high audible noise to reduce the noise reaching the ear to a safe level.
Refer to EN 60034-9 for further information on noise from rotating electrical machines.
6.  Safety guards and other protective devices must neither be bypassed nor rendered inoperative.
7.  The motor must be earthed. Refer to relevant standards such as EN60204-1, IEE Wiring Regulations etc.
8.  A suitable enclosure must be provided for the motor to prevent access to moving parts. Extra caution should be observed around a motor that is automatically started or has automatic resetting relays or is remotely started in case such starting means has not been properly disabled and the motor starts unexpectedly.
9.  Ensure all shaft keys present on moving parts are fully captive before the motor is started.
10.  Ensure adequate safeguards have been made to protect against the consequences of a brake failure,

particularly on applications involving overhauling loads.

11.  TECO UL listed explosion proof motors must only be used in countries where the UL certification is recognized as being appropriate for the application. They are constructed to comply with the label service procedure manual and repairs to them must be made by TECO or a UL listed service center in order to maintain the UL listing.
12.  When using a motor in a variable speed application ensure that it will not be driven above its safe maximum speed limit. Consult TECO if in doubt. Also ensure the motor is not overloaded: It should be remembered that as speed reduces, fans driven by the main shaft do not provide as much cooling air and an auxiliary fan may be required.
13.  Protect the motor from overload, preferable by monitoring the winding temperature. TECO can fit thermostats to give indication that the winding is getting too hot and the thermostats can be connected to switchgear that will automatically trip on the signal from the thermostats.
14.  Capacitors such as in single-phase motors may remain charged even when isolated from the mains supply. Discharge capacitors and earth their terminals before handling any connections.
15.  All TECO UL listed Explosion Proof motors have

temperature limiting devices in the motor enclosure to help prevent excessive external surface temperature of the motor in accordance with UL standards. Terminals (P1、P2) of thermal protectors in these motors must be connected to the motor control equipment according to the connection diagram inside the terminal box.

16.  If regressing is to be carried out with the motor running, ensure only properly trained personnel do it and that live and moving parts are fully guarded.

NOTE : Detailed **INSTALLATION & MAINTENANCE INSTRUCTIONS MANUAL** refer to Dr#31057H402 , Please feel free to contact nearest agent, service center or sale department of **TECO**.

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