

7. MAINTENANCE

Elektrim NEMA standard motors are designed and built for maximum reliability and low maintenance requirements. Following these recommendations will assure you of full service life from your motor and minimize downtime:

1. Keep the motor clean and provide adequate ventilation.
2. Make sure all screens, covers and safety guards are in place.
3. Shut off power and discharge capacitors (except as indicated) before working or performing maintenance on the motor.

Assembly of the Motor

The permissible value of the screw-down torque for motor fixing screws.

- 140 - 30 ft. lbs.
- 180 - 40 ft. lbs.
- 210 - 40 ft. lbs.
- 250 - 45 ft. lbs.
- 280 - 45 ft. lbs.



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INSTRUCTIONS FOR THE INSTALLATION, OPERATION AND MAINTENANCE OF ELEKTRIM SEVERE DUTY INDUCTION MOTORS

140-280 Frame



SOLUTIONS TO MEET YOUR NEEDS

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1. INTRODUCTION

The purpose of this booklet is to help you install, operate and maintain ELEKTRIM Motors to assure that you will get full advantage of their built - in efficiency and reliability. Following the recommended installation and maintenance procedures will extend the service life of the motor and minimize downtime.

2. UPON DELIVERY

Upon receipt of your ELEKTRIM motor, visually inspect it for damage that may have occurred in shipment or storage. Turn the shaft manually to be sure that it runs freely, and check the nameplate data to be sure that specifications are in accordance with your order. Before installing the motor, inspect the windings for moisture. Insulation resistance lower than

20 MOHMS - for 143T through 184T frame motors

2 MOHMS - for 213T through 286T (S) frame motors as measured with a 500V magneto - resistance control device between each phase and frame indicates excess moisture requiring that the windings be dried before installation.

3. MOUNTING

ELEKTRIM motors may be mounted horizontally or vertically provided that there is free movement of air for cooling. Ambient temperatures must not exceed 104°F (40°C). The motors are designed for NEMA F-1, W-2, W-3, W-6, W-8, and C-2 mounting assemblies. The F1 assembly is standard.

Motors should be mounted on a firm, flat base using the largest bolts that will fit the bracket holes. ELEKTRIM motors may be used with any type of drive provided that the motor is accurately aligned and within capacity parameters. Tighten belt sufficiently to prevent slippage, but avoid overtightening which can lead to bearing damage. When mounting the motor make sure drain plugs are removed and drain holes are positioned to allow condensed moisture to drain off.

4. TO REDUCE MAINTENANCE REQUIREMENTS

To reduce maintenance requirements and extend motor life, protect your Elektrim motor from:

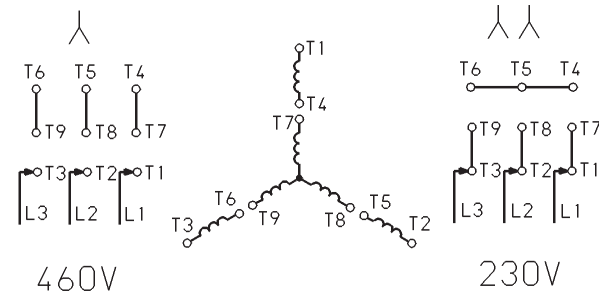
- Excessive moisture,
- Excessive dirt which can reduce cooling effectiveness,
- Overheating due to ambient temperature in excess of 104°C, blocked ventilation, and frequent or prolonged starting,
- Inaccessible position that makes regular maintenance difficult.

5. POWER SUPPLY AND CONNECTIONS

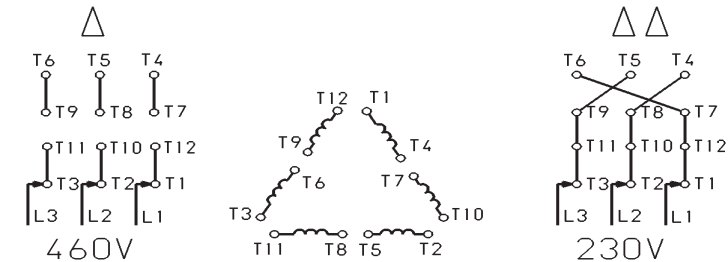
Power supply voltage should not vary more than $\pm 10\%$ from the nominal voltage on the nameplate. Starting controls and overload protection relays must be sized according to the motor ratings, National Technical Code, and recommendations of the control manufacturer.

6. CONNECTING DATA AND METHODS OF STARTING

SIZE 143T -184T ACROSS THE LINE STARTING



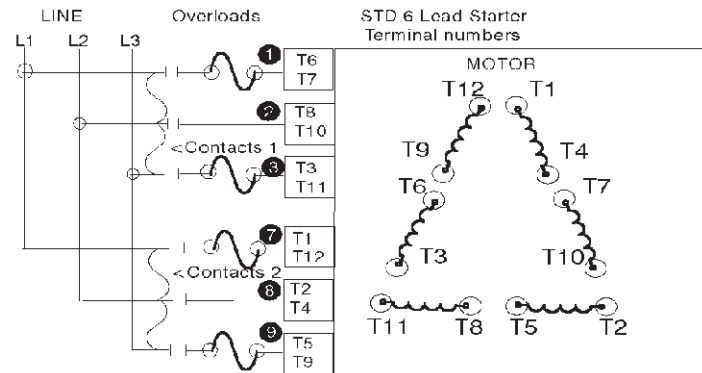
TO REVERSE ROTATION INTERCHANGE, ANY TWO LINES,
SIZE 213T - 286T (S) ACROSS THE LINE STARTING



WYE - DELTA STARTING - CONNECT AS SHOWN BELOW

Voltage	Connect to Starter	Link Together
460V	T1, T2, T3, T10, T11, T12	T4-T7; T5-T8; T6-T9
230V	T1, T2, T3, T10, T11, T12	T1-T7; T2-T8; T3-T9 T10-T4; T11-T5; T12-T6

Part Winding Starting / on 230 V only



Note: Contacts 1 are closed first, followed shortly by contacts 2. The current rating of the overload heaters should be one half the motor F. L. C. for part winding starting.