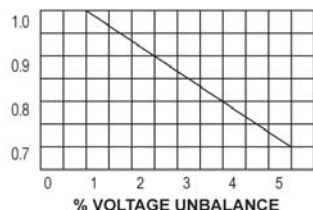


OPERATION:

NO LOAD OPERATION

- 46 Run motor with load uncoupled. Ensure rated voltage is applied to motor terminals and balanced in all three phases. The maximum allowable imbalance is 1%. Should voltage imbalance be greater than 1%, derate motor output or reduce motor load as per graph below.



- 47 Check that three phase currents at No Load are balanced.
Note: The No Load currents will be more if the voltage is higher. They will be less if the voltage is less. The increase & decrease will not be in linear proportion with voltage.
- 48 No abnormal noise.
- 49 Check direction of rotation. If specific.
- 50 Check vibration.

STARTING AND OPERATING ON LOAD

- 51 Squirrel Cage Motors are generally suitable for DOL, Star/Delta or Auto Transformer Starting and Speed Controllers
- 52 While operating on load & the motor is at normal operating temperature, the motor is suitable for 2 starts per hour, unless designed for a higher number of starts.
- 53 Ensure rated voltage at the motor terminal during start up and check starting time within designed limit. (Any normal application, the time required will not be more than 5 sec. At DOL. For high inertia load the starting time is longer but special design is required to cater for this. For star/delta & reduced voltage starter the time will be longer than DOL start).
- 54 Ensure Full Load Currents are balance in all phases (maximum unbalance 8% corresponding to 1% unbalance of voltage) and the value is within Nameplate Data. In case of pulsating load we recommend the maximum current to be within Nameplate value.
- 55 No abnormal vibration. (If change in vibration level is observed,
- 56 check alignment again with motor at normal running temperature).
- 57 No abnormal noise.
- 58 Check maximum air inlet temperature 40°C maximum.
- 59 Check motor temperature after approximately 2 hours of full load operation, maximum 80°C measured at bearing housing including ambient i.e. measured 45°C @ 20°C ambient and predicted summer ambient +20°C = 65°C OK.



PREVENTIVE MAINTENANCE & LUBRICATION

- 60 Motor should be kept clean and free from oil, dust and moisture.
- 61 Care should be taken to see that ventilation passages are not blocked.
- 62 The earthing conductor should be regularly inspected and checked for continuity.
- 63 The insulation resistance of stator should be checked regularly between respective terminals and the frame.
- 64 Always fit shaft clamp during transportation 200 frames and above.
- 65 Grease replenishment (Shell Alvania RL3 recommended, or equivalent) should be carried out at predetermined intervals. More information available at: www.rototech.com.au/downloads. NEVER MIX GREASES.

Note: Rewinding motors may reduce motor efficiency and increase running costs. Contact **ROTEK** for additional information.

ROTEK cannot accept responsibility for the way in which this **INSTALLATION & SAFETY GUIDE** it is interpreted, or any consequence as a result. Abuse of electrical equipment can be hazardous. Every effort should be made to eliminate these hazards and this guide should assist in minimising these risks.

RECORDS

Installed By.....
 Serial No.....
 Date: / / /

For further information please refer to:

PH 0800 4 ROTEK (0800 4 76835)

OR FOR FURTHER TECHNICAL DETAIL www.rotetek.co.nz

726 East Street, Ashburton Fax: 03 308-8639 Email: sales@rotetek.co.nz

AGENT

INSTALLATION AND SAFETY GUIDE



HEALTH & SAFETY AT WORK

This manual gives guidance for installation and maintenance procedures for the TEFC range of **ROTEK** Cage induction motors. It should be carefully read in conjunction with local codes & the following standards prior to installation and commissioning.

Rotating Electrical Machines. General Requirements.
 Rating and Performance.
 Safeguarding of Machinery.
 Electrical Installation (known as SAA Wiring Rules).

Further information can be obtained at: www.rotetek.co.nz
 Refer to the downloads section.

LIFTING

- Use all lifting facilities provided. Single lift point 100 - 112. Dual lift point 132 frame & above. Maximum hand lift is 20Kg below shoulder.
- Vertical lifting – Prevent uncontrolled rotation of the motor.



MAXIMUM WEIGHTS: (Unpacked)

Frame size IEC	63	71	80	90	100	112	132	160
Approx. Weights in KG	5.0	6.5	12	23	28	41	95	120
Frame size IEC	180	200	225	250	280	315	355	
Approx. Weights in KG	290	300	400	520	750	2300	2400	