



- **U1, U2, V1, V2, W1 & W2 are the motor leads as marked**
- **L1, L2 and L3 are the supply cables**
- **To reverse the motors direction of rotation, any 2 of the supply cables should be changed over.**



Remove terminal box lid using appropriate spanner turning in an anticlockwise direction. Place lid in a clean area whilst cabling and connections are being carried out so as not to damage "O ring seal". All seals should be lubricated with food safe grease prior to reassembly to prevent pinching or damage to them on tightening metal parts.



Organise motor cables as per the star or delta connection required (see diagrams above & motor nameplate), please note the terminal box is not fully sealed from the motor in the K series. This is to facilitate pressure testing during final test or following modifications that require dismantling and reassembly of the motor. Undo earth stud nut and keep safe ready to make connection later.



Please ensure stainless steel IP66 Cable glands that are correctly sized to suit cable diameter are used, in place of plastic blanking plug. Feed appropriate cable through into terminal box, fully tighten gland around cable and into gland post when completed this forms an important part of the IP66 integrity. There is an alternative entry into terminal box if required. Finally check there is no movement of cable within gland.



Strip back all motor and supply cables to a sufficient length to enable effective connection and feed onto each motor cable a length of shrink sleeving long enough to thoroughly cover completed connection. This will protect against short circuits should any condensation form inside the terminal box. Alternatively pre-manufactured waterproof crimped connectors can be used if available.



Solder, braze or crimp appropriate cables as per normal connection diagrams for all conventional 3 phase motors. Connection will vary dependent upon your supply (refer to nameplate data for voltage and connection needed) and starting method, we recommend verification of this with a competent electrician if there is any doubt.



Place shrink sleeving fully over connections made and heat gently with a hot air gun or hairdryer until sleeving is fitting tightly and completely covering joint. Ensure that ALL connections have this covering. Also ensure that earth wire is connected to stud and terminal nut is replaced and tightened.



Replace terminal box lid ensuring that the O ring seal is in the correct position and not damaged. Fully tighten in clockwise direction with appropriate spanner ensuring that the lid is not cross threaded and that it closes fully metal to metal with a tight joint. The internal O ring is now compressed and will seal, there is no requirement for any further external sealing if this is followed correctly.





***Stainless steel motors are built and designed for longevity and low maintenance. The installation, connection and maintenance requirements set out in this document are there to ensure that the product's life will be extended as much as possible***

## **On delivery**

- Visually inspect the motor for any obvious transport damage, such as the shaft being tight, fan cowl being dented etc. Should any such damage be found, please refer to your supplier prior to installation
- Before installing the motor, check nameplate data carefully to ensure it is in accordance to specification requested.

## **Mounting**

- Stainless steel motors may be mounted horizontally or vertically, shaft down or shaft up provided there is free movement of air for cooling – If vertical shaft up in a particularly arduous environment additional sealing may be required to achieve maximum benefit, if this is the case, then refer to your supplier or a motor specialist from Lafert Electric Motors Ltd for further information
- If ambient temperatures are higher than 40 degrees centigrade, refer to your supplier
- Ensure motors are mounted onto a firm flat base to eliminate chances of misalignment

## **Power Supply and Connections**

- Input voltage should not vary more than + or – 10% of nominal nameplate voltage
- Ensure motor leads are terminated correctly for voltage as per nameplate & info overleaf
- Motor must be earth tested before running – readings below 1 Megohm are unacceptable
- Current test motor of and on load to confirm motor is not overloaded
- Where supplied and able, connect thermistors to protect motor from over temperature

***Failure to meet with the above may invalidate warranty***

## **Maintenance**

- Bearings are sealed for life, with “special grease” that will not need to be replaced. Bearings should however be checked for noise at regular intervals and replaced “like for like” as necessary, please check with Lafert UK for correct bearings replacements.
- All seals should be checked regularly and replaced as necessary using parts as per the original design.
- Dismantling and maintenance of motor should only be carried out by authorised repair agents.
- Ensure supply is isolated before opening terminal box
- For TEFC motors, they should be checked regularly for ventilation flow at fan cowl
- Any inspection must be carried out carefully using correct tools.

