1.3.9.6 Terminals and terminal boxes

A. Terminal boxes shall be cast iron and shall be designed to accept XLPE or PVC armoured cable as detailed in the Contract. On non-submersible motors, terminal boxes shall be mounted on the right hand side when viewed from the driving end of the motor, unless otherwise required by the Contract.

B. The motor stool base where appropriate shall be drilled at works vertically below the terminal box gland for the passage of the cables and the edges of the hole slightly countersunk or the hole bushed.

C. Terminals shall be stud-type, substantially designed, anchored to a carrier terminal block and insulated from the motor frame. Terminals shall be identified in accordance with BS 4999 Part 108 or equivalent. A separate earth stud shall be included on each terminal box. Heater terminals shall be shrouded.

D. Adequate space and glanding arrangements shall be provided, particularly on smaller motors requiring glanding and terminating of steel wire armoured cable for star/delta starting, anti-condensation heating and thermistor winding protection devices.

E. Where a common terminal box is used for main, heater and thermistor cable terminations, a permanent warning label shall be fixed to the terminal box cover. In addition, heater and thermistor cable terminations shall be clearly marked to identify their separate functions and operating voltages.

F. Terminal box covers shall be gasketted to provide a degree of protection equivalent to or better than that of the motor.

G. For Ex 'd' flameproof motors, terminal boxes may employ Type 'e' increased safety protection, utilising indirect cable entry to the flameproof enclosure. However, this must be of the same type used to obtain the potentially explosive hazardous area motor certification.

H. 3.3kV motor cable termination boxes shall be high fault level type, with segregated phases, pressure relief diaphragm and sealing chamber.

I. Power cables shall be separated from monitoring cables.

J. Terminal box for dry-installation pumps shall be detachable type, for ease of maintenance and if required, only terminal box to be removed from the pump.