C. Instruments shall have an external zero adjustment and have black bezels. They shall be positioned at easily readable height not exceeding 2000 mm above finished floor level.

D. Meters shall be fitted with an adjustable RED pointer indicating the normal circuit rating of the associated plant, equipment and drive.

E. Instruments shall have a square front appearance, dimensions of 96 mm x 96 mm for measuring the parameters of a plant or equipment's total connected load. Dimension 72 mm x 72 mm size meters shall be permitted to use for individual loads.

F. Ammeters used to measure current in the motor circuit shall have suppressed scale (minimum 5 times the full load current. of the motor) to indicate the maximum starting current. Ammeters shall be selected such that the ampere reading under normal running load is approximately 70 to 80 percent of their rated scale.

G. All meters shall have factory calibrated scale to match the connected load. It will not be permitted to use any label whereby the operator needs to recalculate the actual measured parameter by computing the value from the label.

H. Motors rated full load current 10 amperes and below shall be provided with direct reading type Ammeter and rated current exceeding 10 amperes, the ammeters shall be connected via current transformers.

I. Kilowatt-hour meters shall be arranged to register 3 phase 4 wire unbalanced loads. The Kwh meter shall be provided in accordance with the requirement of ADDC or their associated companies.

1.3.19.1 Control Power Transformer

A. The control power transformer shall be double wound, isolating type, with screen between the windings; designed and manufactured to BS EN 60742, centre tapped and earthed via a removable bolted earth link, minimum capacity 100VA/50Hz, 400/110 Volts, 230/110 Volts and/or 230/24 V as per applications requirement.

B. The control transformer shall have the following features:

a. Vacuum impregnated windings.

b. Low Inrush Current