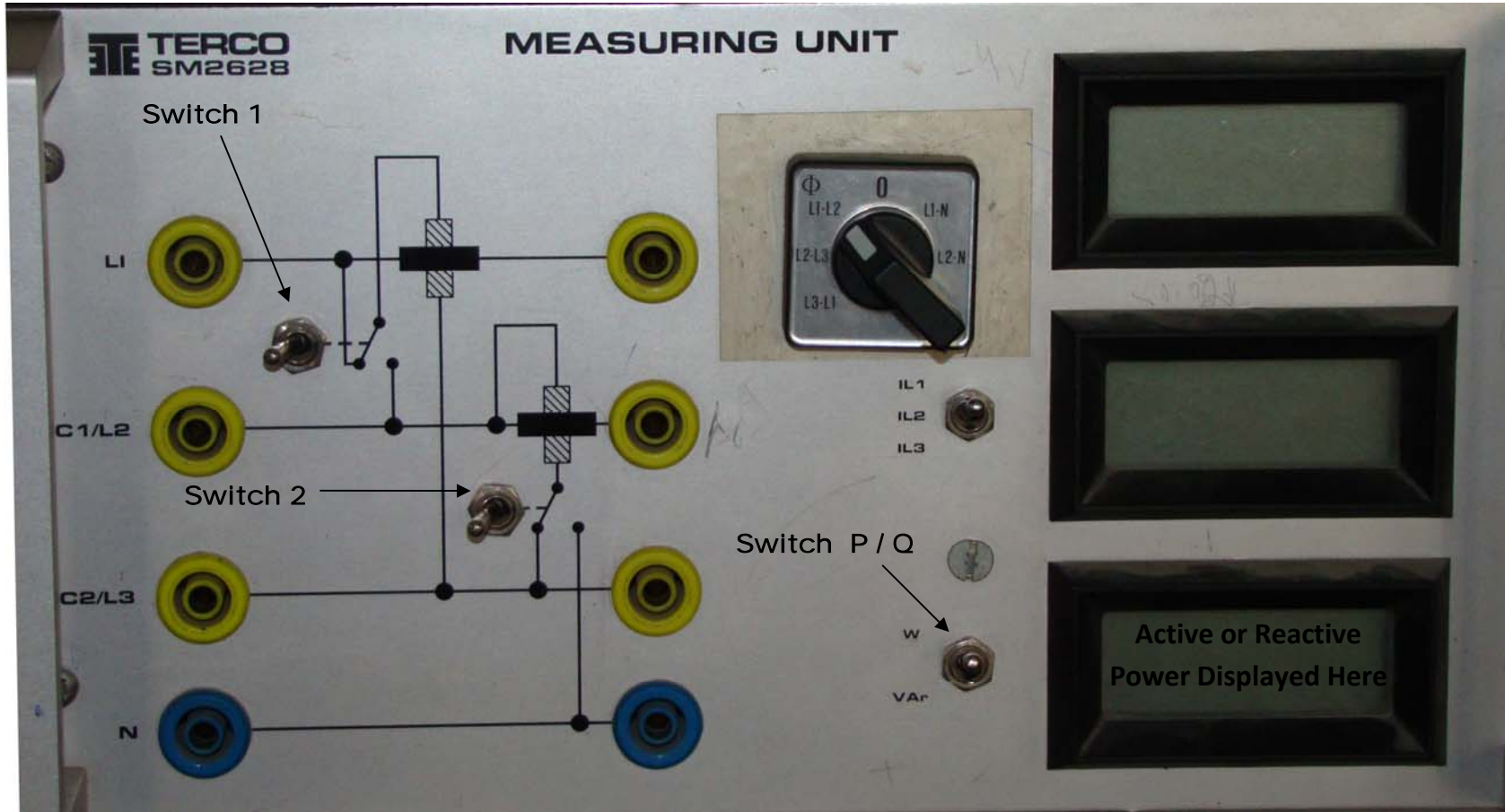


APPENDIX



Switch 1: 3 Position Switch

Position **a**: Extreme Left
 Position **b**: Middle
 Position **c**: Extreme Right

Switch 2: 2 Position Switch

Position **d**: Left
 Position **e**: Right

Switch P / Q : 2 Position Switch

Position **W**: Active Power
 Position **VAR**: Reactive Power

Read Article 19.15 to 19.24 from "A TEXTBOOK OF ELECTRICAL TECHNOLOGY"
 by B.L. Theraja & A.K. Theraja
 for 3-PHASE BALANCED / UNBALANCED ACTIVE & REACTIVE POWER
 MEASUREMENT

2 Wattmeter Method for 3-phase Active Power Measurement

For W_1 :

Switch 1: a position
Switch 2: e position
Switch P/Q: W position

2 Wattmeter Method for 3-phase Active Power Measurement

For W_2 :

Switch 1: b position
Switch 2: d position
Switch P/Q: W position

2 Wattmeter Method for 3-phase Active Power Measurement

For $W_1 + W_2$:

Switch 1: a position
Switch 2: d position
Switch P/Q: W position

For 3-phase Reactive Power Measurement

For Q :

Switch 1: b position
Switch 2: d position
Switch P/Q: VAR position

Single Phase Power Measurement (Line to Line Voltage)

(Use L1 and L3)

Switch 1: a position
Switch 2: e position
Switch P/Q: W position

Single Phase Power Measurement (Line to Neutral Voltage)

(Use L2 and N)

Switch 1: b position
Switch 2: d position
Switch P/Q: W position

Note: Reactive Power cannot be measured for single phase load it can only be calculated by $V\sin\theta$. Reactive Power can only be measured for Three Phase Load