

**Product Name :**  
Internal Resistance And Matching In Voltage Sources

**Product Code :**  
BASE0005



### Description :

Internal Resistance And Matching In Voltage Sources

### Technical Specification :

Principle Both the terminal voltage of a voltage source and the current depend on the load, i. e. on the external resistance. The terminal voltage is measured as a function of the current and from it the internal resistance and no-load voltage of the voltage source are determined and the power graph plotted. Tasks To measure the terminal voltage  $U_t$  of a number of voltage source as a function of the current, varying the external resistance  $R_e$ , and to calculate the no-load voltage  $U_0$  and the internal resistance  $R_i$ . 1.1 Slimline battery 1.2 Power supply 1.2.1 Alternating voltage output 1.2.2 Direct voltage output To measure directly the no-load voltage of the slimline battery (with no external resistance) and its internal resistance (by power matching,  $R_i = R_e$ ). To determine the power diagram from the relationship between terminal voltage and current, as illustrated by the slimline battery. What you can learn about Voltage source Electromotive force (e.m.f.) Terminal voltage No-load operation Short circuit Ohm's law Kirchhoff's laws Power matching