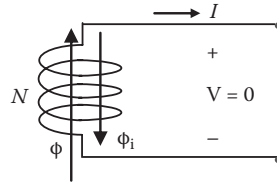
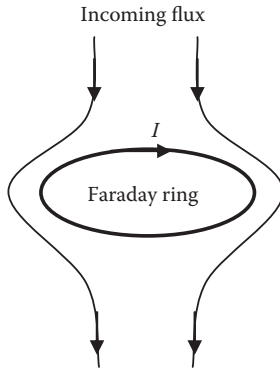


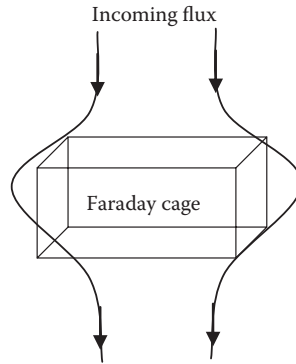
(a) Flux  $\Phi$  from external source and  $\Phi_i$  due to load current  $I$



(b) Net flux  $(\Phi - \Phi_i)$  remains constant (frozen) in shorted coil

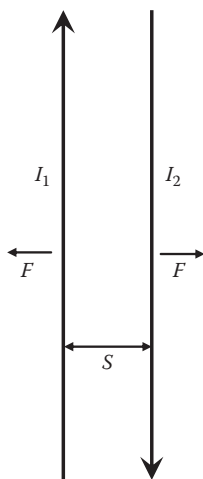


(c) Shorted conductor ring keeps flux away (shield)

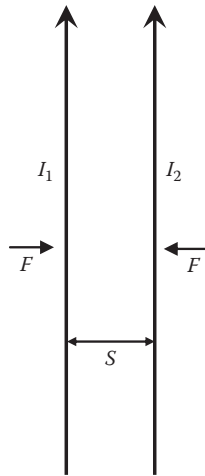


(d) Conductor cage keeps flux away (shield)

Figure 2.1 Faraday's law and constant flux theorem in shorted coil.



(a) Repulsive force between currents  
in opposite directions



(b) Attractive force between current  
in same directions

Figure 2.2 Mechanical force between two parallel bus bars.

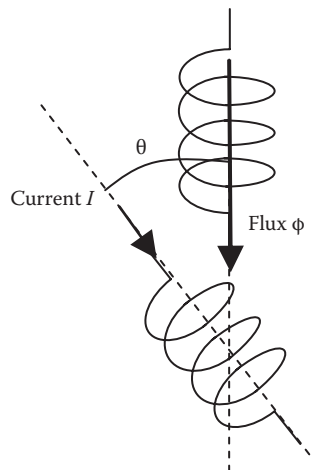


Figure 2.3 Mechanical torque between two coils.

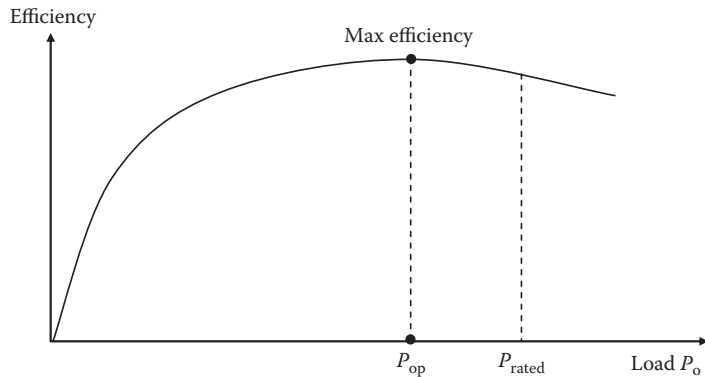


Figure 2.4 Efficiency versus load power output and maximum efficiency point.

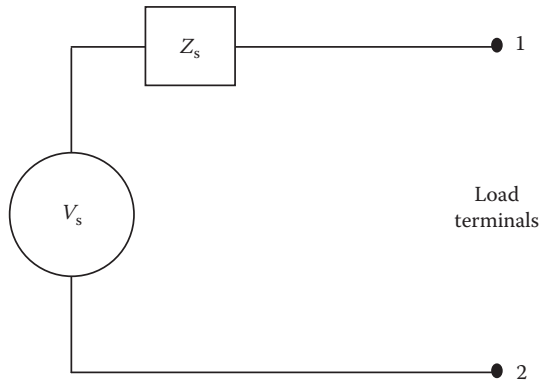
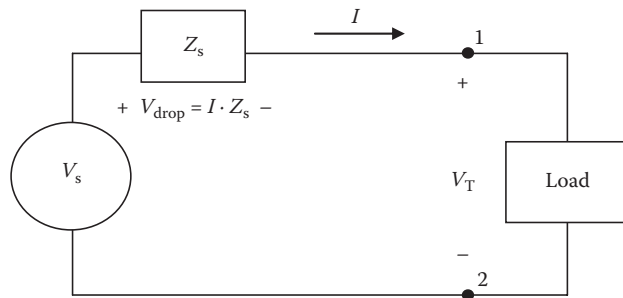
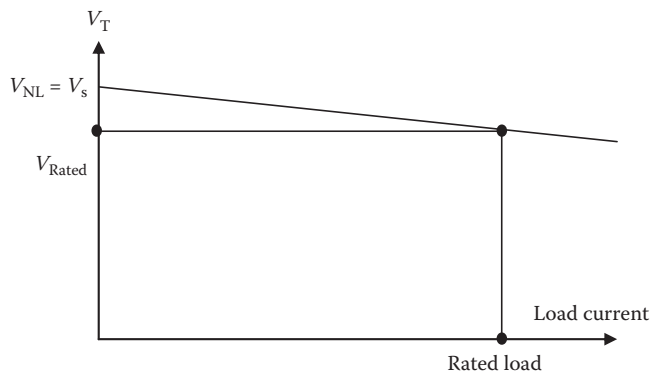


Figure 2.5 Thevenin equivalent source model of any electrical power source.



(a) Thevenin equivalent source with load current



(b) Terminal voltage droops with load

Figure 2.6 Drooping voltage with increasing load current at output terminals.

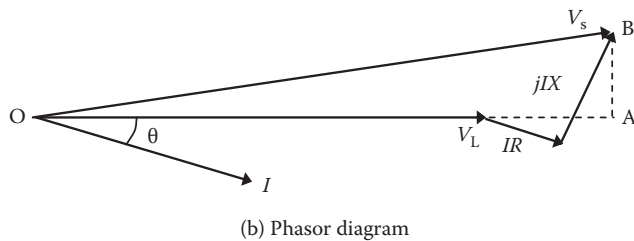
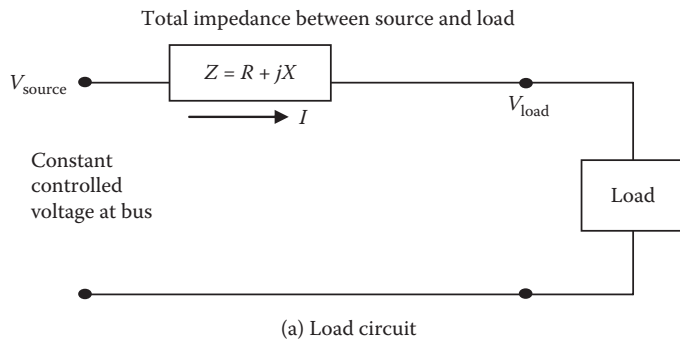


Figure 2.7 Voltage drop in series impedance and voltage regulation.

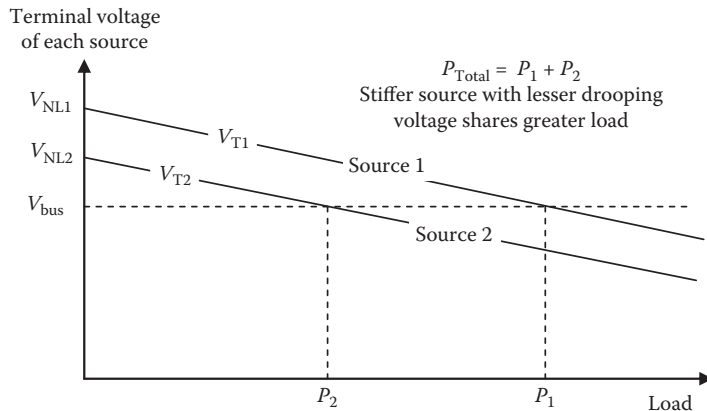


Figure 2.8 Voltage droop lines for two static power sources sharing load in parallel.



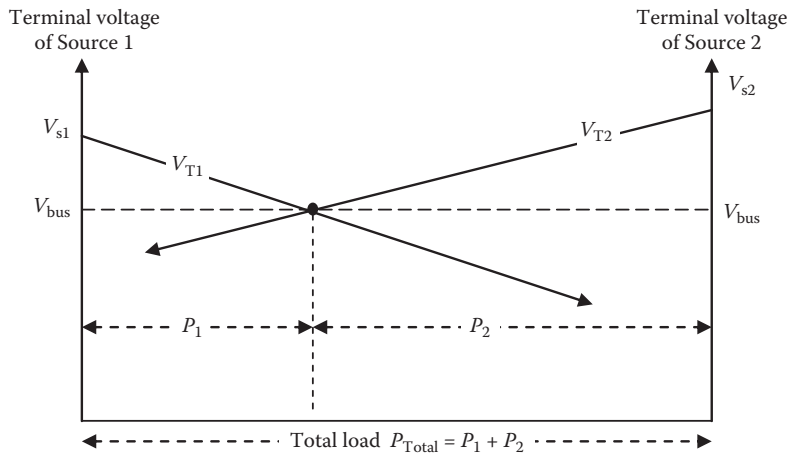


Figure 2.9 One-step method of determining load shared by two static sources in parallel.