

Capacitor also known as Condenser

www.physiotherapyphd.com

The capacitance of an object is the ability of the body to hold an electrical charge. The unit of capacitance is farad.

The capacitor ability depends on the surface area and its material used.

Three types of capacitors:

Parallel plate capacitor is the capacitor which is used most commonly. It consists of two thin conducting plates held parallel to each other, suitable distance apart. The plates are separated by an insulating medium like air, paper, mica, glass, etc. or dielectric constant.

Spherical capacitor consists of a hollow conducting sphere of radius R_a surrounded by another concentric conducting spherical shell of radius R_b .

Variable capacitor consists of two sets of plates interleaving with one another, constructed in such a way that one set of plates can be moved relative to the other, thus varying the area fully interleaved, the capacitance is maximum. Variable sets are found in radio sets and short wave diathermy machine.

Grouping of Capacitors: In many electrical circuits, capacitors are to be grouped suitably to obtain the desired capacitance. Two most commonly used modes of grouping of capacitors are: Series and parallel.