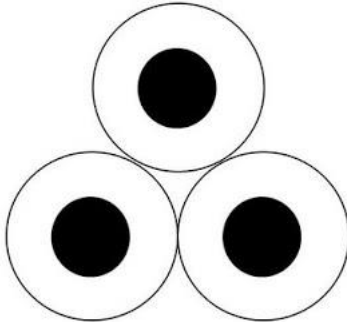


Trefoil Formation refers to a method of arranging cables. The trefoil arrangement is primarily used in situations where the three phases are carried by individual cables rather than a single three phase cable.

Trefoil Formation



In a three phase cable, since the individual conductors along with their insulation are placed near each other the net inductance is minimum as the magnetic field of the individual currents cancel each other out.

However, in single phase cables, when the cables are placed in a straight line the inductance is not cancelled. This can reduce the current carrying capacity of the cable by way of mutual inductance. It can also induce eddy currents in the cable sheath and metallic conduits which can cause heating. It is advisable to have conduits of non-ferrous metals.

Connecting the individual cables in the trefoil formation minimizes the magnetic field around the conductor and reduces the heating. There are special trefoil spacers which hold individual cables in place so that the magnetic fields cancel each other to the maximum.

