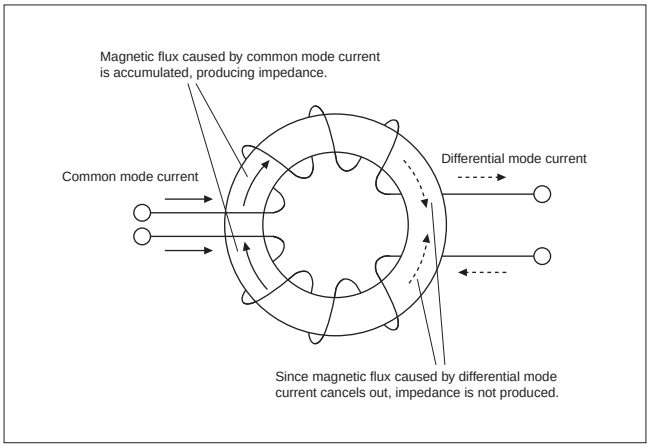
9 Example of Noise Suppression in AC Power Supplies

Reasons Why Common Mode Choke Coils Contain Mode Inductance

With an ideal common mode choke coil, magnetic flux caused by common mode current is accumulated inside the ferrite core. Therefore, the common mode choke coil works as an inductor against common mode current. On the other hand, magnetic flux caused by differential mode current cancels out. Therefore, a common mode choke coil does not affect differential mode current. However, since an actual common choke coil produces leakage flux, magnetic flux caused by differential mode current does not entirely cancel out. In other words, an actual common mode choke coil contains differential mode inductance as well as common mode inductance.

■Ideal Common Mode Choke Coil



■Actual Common Mode Choke Coil