



IEC 61000 SERIES

The **IEC 61000 series** comprise international standards developed by the International Electrotechnical Commission (IEC) to address **Electromagnetic Compatibility** (EMC)-ensuring that electrical and electronic equipment operates correctly without causing or succumbing to electromagnetic disturbances in various environments.

Key parts of the IEC **61000** series include:

- **IEC 61000-1-X**: General considerations, including definitions, concepts, and methodologies related to EMC.
- **IEC 61000-2-X**: Describes environmental conditions and compatibility levels for electromagnetic disturbances in different settings.
- **IEC 61000-3-X**: Focuses on limits for harmonic current emissions, voltage fluctuations, and flicker in public low-voltage supply systems.
- **IEC 61000-4-X** : Details testing and measurement techniques for various EMC phenomena, such as :
 - **IEC 61000-4-2** : Electrostatic discharge immunity test.
 - **IEC 61000-4-3**: Radiated, radio-frequency, electromagnetic field immunity test,
 - **IEC 61000-4-4**: Electrical fast transient/burst immunity test.
 - **IEC 61000-4-5**: Surge immunity test.
 - **IEC 61000-4-6**: Immunity to conducted disturbances induced by radio-frequency fields.
 - **IEC 61000-4-8**: Power frequency magnetic field immunity test. •
 - **IEC 61000-4-11** : Voltage dips, short interruptions, and voltage variations immunity test
- **IEC 61000-6-X** : Generic standards specifying EMC requirements for different environments :
 - **IEC 61000-6-1** : Immunity for residential, commercial, and light-industrial environments.
 - **IEC 61000-6-2** : Immunity for industrial environments.
 - **IEC 61000-6-3** : Emission standard for residential, commercial and light-industrial environments.
 - **IEC 61000-6-4** : Emission standard for Industrial environments.

These standards are essential for manufacturers and testing bodies to ensure that equipment meets EMC requirements, facilitating reliable operation and compliance with international regulations.