Distortion Power Factor .

Distorted voltage waveforms and current waveforms contain harmonics. These harmonics increase the losses in the supply.

What is distortion power factor?

Distortion power factor is caused by the presense of harmonics in the current waveform. The harmonics are caused by a non linear load which is commonly a solid state rectifier of SCR based controller.
The major sources of harmonics in industry are the input rectifiers of AC and DC drive systems and switchmode power supply systems.

Distortion Power Factor Correction

Distortion power factor can only be corrected by reducing the harmonic currents, This can be achieved by the use of passive harmonic filters , active filters or active rectifier circuits.

Like displacement power factor, distortion power factor indicates the potential losses in the supply that can be reduced by the appropriate correction. Additionally, a poor distortion power factor can have a serious affect on other equipment connected to the supply. Hence, a poor distortion power factor is far more damaging and less desirable than a poor displacement power factor.

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