

SUBJECT: Light Flicker

Light flicker (caused by a momentary voltage dip to light bulbs) is commonly associated with the start-up of some appliances, such as air conditioning condensing units. Most appliances draw more electrical current at start up than during normal (steady) operation. The additional current draw and length of time needed for the appliance to achieve steady operation are both related to the momentary voltage dip and thus, to the degree of light flicker. This is not usually an unsafe or harmful event and does not affect the reliability, performance or efficiency of appliances. It may however, become an annoyance for people who are more sensitive to changes in light intensity.

What can be done to reduce the potential for light flicker?

1. Ensure that the electric supply service and wires are properly sized. Under sizing can result in a voltage drop. Air conditioning **Rule of thumb:** Provide at least 40 amps of service per ton of air conditioning.
2. Make sure all wire connections are tight.
3. Provide proper grounding for all appliances.
4. Make sure the circuits are properly balanced. All circuits should draw amperage as evenly as possible from both 115-volt sides of the 230-volt circuit.
5. A hard start kit (start capacitor and potential relay) may help to reduce or eliminate the light flicker.
6. As a last resort, contact the utility company and ask to check its wire size and transformer servicing the house to ensure adequacy for handling the required starting current.