

Recommended Voltage Variation Limits for Circuits up to 1000 volts, at Service Entrances

Voltage Variation Limited Application at Service Entrances

| Nominal System Voltages | Extreme Operating Conditions | Normal Operating Conditions | | Extreme Operating Conditions |
|--------------------------------|-------------------------------------|------------------------------------|----------------|-------------------------------------|
| Single Phase | | | | |
| 120/240 | 106/212 | 110/220 | 125/250 | 127/254 |
| 240 | 212 | 220 | 250 | 254 |
| Three phase 4-Conductor | | | | |
| 120/208Y | 110/190 | 112/194 | 125/216 | 127/220 |
| 347/600Y | 306/530 | 318/550 | 360/625 | 367/635 |

General Electric flicker limits are:

Voltage Change (%)

.05
1.0
2.0
4.0

Frequency

10-30 per second
02-10 per second
< 10 per minute
4 per day or less

A formula for the % voltage change = 100 x MVA L (motor starting or other change) divided by MVA SC (short circuit at point of high voltage supply). As this formula is a slightly pessimistic approximation, marginal services should be discussed with the utility.