RULES FOR ELECTRIC METER & SERVICE INSTALLATIONS



RULE 22

- (a) Voltage Drop and Flicker
- (b) Normal Limitation 5 HP or Smaller
- (c) PPL EU Approval Above Normal Limitations -Above 5 HP
- (d) Recommended Voltage
- (e) Central Heating Systems

RULE 22 - CUSTOMER'S EQUIPMENT — SINGLE PHASE MOTOR INSTALLATIONS

a. Voltage Drop and Flicker:

Any motor when started on full rated voltage will draw more than its normal running current which, in turn, causes an additional drop in voltage in the electrical wiring serving it.

When the motor starting is excessive, the resulting voltage fluctuations cause flickering of lights and may cause unsatisfactory operation of other equipment.

b. Normal Limitation - 5 HP or Smaller:

PPL EU should be advised of the installation of motor loads so that adequate service facilities can be provided, but no specific PPL EU approval is required for the installation of equipment with an individual motor, 5 HP (3.73 kW) or smaller or individual air conditioners, refrigeration or other similar equipment rated 40,000 BTU/hr (3.33 Tons) or less.

When equipment has more than one motor starting through a common control, the combined ratings of all motors or equipment starting simultaneously shall not exceed the aforesaid limits.

c. PPL EU Approval Above Normal Limitations - Above 5 HP:

Single phase motors larger than 5 HP (3.73 kW) or air conditioners and refrigeration equipment rated over 40,000 BTU/hr (3.33 Tons) may be installed when approved by PPL EU and when the installation is made by the customer in a manner specified by PPL EU.

PPL EU is not responsible for unsatisfactory service resulting from the operation of such motors installed by the customer without consulting PPL EU. The customer will be responsible for paying all costs to change PPL EU facilities to correct the problem.

d. Recommended Voltage:

PPL EU recommends that all equipment requiring 3/4 HP (0.56 kW) and larger motors be purchased for operation at 208 or 240 Volts.

e. <u>Central Heating Systems:</u>

Central electric heating systems which are intended primarily for residential applications shall have control systems complying with the latest requirements of the "EEI-NEMA Standards for Load Control for Use on Central Electric Heating Systems". These Standards specify that for normal operations of electro-mechanical controllers, at least 5-second delay shall be provided between the switching of stages.

The maximum current to be switched per stage is 48 Amperes (11.5 KW at 240 Volts). "Normal operations" is not intended to include limit control operation, operation following a change in temperature set-point, or operation following a power interruption

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