

RULES FOR ELECTRIC METER & SERVICE INSTALLATIONS



RULE 2

- (a) Standard Service Voltages**
- (b) Non-Standard Service Voltages**
- (c) Residential Service**
- (d) Combine Three Phase and Single Phase Loads**
- (e) Metering Equipment Not Used As Junction and/or Pull Box**
- (f) Service Termination Compartments Not Used as Pull Box or to Connect Customer Equipment**

NOTES:

- 1. 2 Wire Service Limited**
- 2. Residential Service at 120/208 Volts**
- 3. Single Phase, 3 Wire Service**
- 4. Three Phase, 4 Wire, 240 Volt, Delta Service**
- 5. Three Phase, 3 Wire, 480 Volt, Delta Service**
- 6. Three Phase, 4 Wire, 480Y Volt Service**

RULE 2 - SERVICE AVAILABLE AT SECONDARY VOLTAGE

a. Standard Service Voltages

Secondary service is provided from the nearest suitable distribution line and, where required, PPL EU installs, owns and maintains one transformation from line voltage to one of the following standard secondary service voltages:

Phase	Wires	Nominal Voltage	Reference
1	2	120	Note 1
1	3	120/208	Note 2
1	3	120/240	Note 3
3	4	208Y	Note 2
3	4	240 - Single Phase 120/240	Note 4
3	3	480	Note 5
3	4	480Y	Note 6

b. Non-Standard Service Voltages:

Phase	Wires	Nominal Voltage	Reference
1	3	240/480 – single phase	Note 5
1	3	277/480* - single phase	Note 6

*Available at customers expense – two additional transformers may be required.

c. Residential Service:

An individual service under a residential service rate schedule is provided only by a three wire, 120/208 or 120/240 Volt service.

d. Combined Three Phase and Single Phase Loads:

PPL EU has different ways of providing combined three phase power and single phase lighting loads for service to Industrial and Commercial services.

For this reason each proposed new or additional load of this type shall be referred to PPL EU for full information on the kind of service to be provided.

e. Metering Equipment Not Used as Junction Box and/or Pull Box:

See **Rule 12** – for detailed information on Junction Box and/or Pull Box

f. Service Termination Compartments Not Used as Pull Box or to Connect Customer Equipment:

Service termination compartments shall not be used as pull boxes or to connect customer equipment. Taps and bugs are not permitted.

Customer equipment shall not be installed or connected in service termination compartments. Only service entrance conductors can be connected in service termination compartments.

Foreign energy sources shall not be connected in the service termination compartment. (See **Definitions Page** for more information on what PPL EU defines as Foreign Energy Source and Service Termination Compartment.)

NOTES:

1. 2 Wire Service Limited:

Single phase, 2 wire, 120 Volt service is available only for limited loads of approximately 3000 Watts or less which are served through a single 30 Ampere branch circuit, such as traffic signals, small signs and cable television amplifier installations.

2. Residential Service at 120/208 Volts:

In areas where the secondary distribution system is 208Y Volts, three phase, 4 wire (grounded neutral), residential buildings with one or two dwelling units are served through a single phase, 3 wire, 120/208 Volt common service.

Residential buildings with three or more dwelling units are served through a three phase, 4 wire, common service and the individual single phase, 3 wire, 120/208 Volt sub-services to the individual dwelling units shall be balanced as nearly as possible on the three phases.

All services, other than residential, are served through three phase, 4 wire services except small establishments with limited loads requiring a service of 100 Ampere or less capacity. They may be supplied through a single phase, 3 wire service.

3. Single Phase, 3 Wire Service:

Single phase, 3 wire (grounded neutral) service is generally available for residential and general light and power service.

4. Three Phase 4 Wire, 240 Volt, Delta Service:

Three phase, 4 wire (grounded neutral), 240 Volt delta connected service is provided for commercial and industrial service where multi-phase distribution is available.

Lighting and single phase power at 120/240 Volts are served through the common service drop from the transformer with the grounded center tap.

On underground residential distribution systems, delta served load shall be limited to those loads which can be provided by an open Wye-open delta transformer bank.

5. Three Phase, 3 Wire, 480 Volt, Delta Service:

Three phase, 3 wire, 480 Volt delta connected service is provided only for commercial and industrial service.

PPL EU can provide single phase, 3 wire service at 240/480 Volts for special applications, such as street lighting, highway lighting and special electric heating equipment at the customers expense.

6. Three Phase, 4 Wire, 480Y Volt Service:

Three phase, 4 wire, 480Y Volt service is provided for commercial and industrial services when 12 KV service is available.

The maximum transformer bank on a single pole cluster mounted overhead installation is limited to a capacity of 500 KVA.

See **Rule 9** for details and specifications for installation of distribution type transformers in a vault or a pad mount three phase transformer.

PPL EU can provide single phase, 3 wire service at 277/480 Volts for special applications, such as street lighting, highway lighting and special electric heating equipment.

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