

DESIGN GUIDELINES:

1. Materials

1.1. Meter

1.1.1. The kWh meter for all the new installations shall be Solid State Polyphase Meter.

1.1.2. 3-Wire Delta Application

1.1.2.1. Type: Class 20, service 3Delta wires 3, test amp 2.5, form 5S, standard nameplate

1.1.3. 4-Wire Wye Application

1.1.3.1. Type: Class 20, service Wye, wires 4, test amp 2.5, form 9S, standard nameplate

1.1.3.2. Type: Class 200, Service Wye, wires 4, form 6S, standard nameplate

1.1.4. Single Phase Application

1.1.4.1. Type: Class 100, Service 120V, wires 2, Form 1S, standard nameplate

1.1.4.2. Type: Class 200, service 120/208V or 277/480V, wires 3, form 25S, standard nameplate

1.1.5. MU Only: Meter shall be supplied by the System Owner.

1.2. Current Transformers

1.2.1. Current transformers shall only be installed on circuits rated larger than 200A. For circuits 200A and smaller, self contained metering shall be used.

1.2.2. The Current Transformers (Instrument Transformers) shall meet the applicable provisions of ANSI C57.110.78 (R1986) and ANSI C12.11.987

1.2.3. Current transformers (CT's) shall be of a design for indoor use suitable for electricity metering grade. The CT's shall be suitable for padmount distribution transformer installation. The current transformer body construction shall be of molded insulation. The preferred outside body shape or configuration shall be Grecian Urn style. The CT's shall be window type with voltage application range of 1.2 to 15kV.

1.2.4. The combination of ratio and rating factor (RF) of selected CT's shall be chosen to pick up a small load. At service full load, meter current must not exceed 20 amperes or the CT's maximum rating whichever is smaller. Service full load shall be determined from the smaller of either the transformer secondary full load amps or the main service protective device. CT ratio and RF rating shall be chosen from the following table:

Service Full Load(s)	CT Ratio (CTR)	Minimum Rating Factor
200A < S" \$	200:5	3 @ 55°C Ambient

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\$ 6"	\$	400:5	2 @ 55°C Ambient
\$ 6"	\$	600:5	2 @ 55°C Ambient
\$ 6"	\$	800:5	

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- 2.2. The Contractor shall supply and install current transformers, fuse block and fuses, meter socket, , conduits, prescribed wires and other material and gadgets required to complete the job.
- 2.3. Meter Wiring
 - 2.3.1. The maximum distance in feet between CT and meter shall meet ANSI accuracy classification at B0.2 accuracy class