

Metering Transformers



1. Scope

This standard covers the requirements for metering transformers used to construct Seattle City Light (SCL) services.

Metering transformers are also known as instrument transformers, current transformers, CTs, potential transformers, voltage transformers, or VTs, as applicable.

This standard applies to the SCL stock numbers cited in Section 4.

2. Application

Metering transformers are used to measure energy use of larger SCL customers.

3. Industry Standards

Metering transformers shall meet the applicable requirements of the latest revision of the following industry standard:

IEEE C57.13 - IEEE Standard Requirements for Instrument Transformers

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4. Requirements

Weatherproof nameplate shall be installed on each transformer to include the following information:

- Transformer type
- Ratio
- BIL
- Manufacturer name and location
- Serial number
- Catalog number

Metering Transformers shall be equipped with sealable secondary terminal covers.

Current transformers shall be equipped with retained shorting devices.

Table 3a. 600 V Class Current Transformers

Stock No.	Ratio	Primary Amps	Voltage Class	BIL	Thermal Rating 30°C	Burden 0.3% Accuracy Class	Description
400620	200:5	200	600V	10 kV	4.0	0.5	Current, indoor/outdoor, bar type, single ratio
400621	400:5	400	600V	10 kV	3.0	0.5	Current, indoor/outdoor, bar type, single ratio
400622	500:5	500	600V	10 kV	4.0	0.5	Current, indoor/outdoor, window type, single ratio
400630	1500:5	1500	600V	10 kV	3.0	B0.9	Current, indoor/outdoor, window type, single ratio

Table 3b. 25 kV Class Transformers

Stock No.	Ratio	Primary Amps	Voltage Class	BIL	Thermal Rating 30°C	Burden 0.3% Accuracy Class	Description
011905	120:1	NA	25 kV	125 kV	750	W,X,M,Y	Voltage, outdoor, no fusing, wound type
011907	200:5	200	25 kV	150 kV	1.5	B1.8	Current, outdoor, wound type, single ratio
012855	50:5	50	25 kV	150 kV	1.5	B1.8	Current, outdoor, wound type, single ratio

5. Testing

Metering transformers shall be tested per IEEE C57.13.

Test reports shall be provided upon request.

6. Packaging

Transformers shall be packaged to prevent damage during shipping, handling, and inside storage.

Transformers and associated installation material shall be packaged together to prevent loss.

Current transformers shall be packaged with the terminals shorted with a retained shorting device.

Individual packages shall be legibly marked with:

- Product description

Shipping containers shall be legibly marked with:

- SCL stock number
- SCL purchase order number

7. Issuance

Stock unit: EA

8. Approved Manufacturers

Stock No	Manufacturer	Catalog No.	
400620	GEC Durham Industries	219EP	
400621	GEC Durham Industries	221EP	
400622	GEC Durham Industries	540NEP	
400630	General Electric	750X120180-528	
011905	General Electric	766X031002-528	
012855	General Electric	756X051026	
011907	General Electric	756X051721	

9. Sources

GEC Durham Industries Cut Sheet for Catalog Number 219EP, Stock No 400620, 5/26/2004

GEC Durham Industries Cut Sheet for Catalog Number 221EP, Stock No 400621, 5/26/2004

GEC Durham Industries Cut Sheet for Catalog Number 540NEP, Stock No 400622, 4/23/2021

GE Cut Sheet for Catalog Number 750X120180, Stock No 400630

GE Cut Sheet for Catalog Number 766X031002, Stock No 011905

GE Cut Sheet for Catalog Number 756X051721, Stock No 011907 and 012855

GE Drawing number 9930950004 for Catalog Number 766X031002-528, Stock No 011905

GE Drawing number A-9935468 for Catalog Number 756X051721, Stock No 011907

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