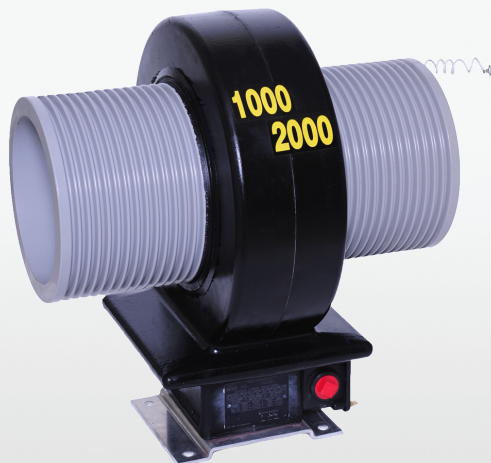


## INSTRUMENT TRANSFORMERS

# LG-25-6513 and LGX-25-6513

## Outdoor station post current transformers



The LG-25-6513 and LGX-25-6513 outdoor current transformers are designed for use on substation structures where high current, large diameter primary conductors are used.

### Product features

- 25 kV, 150 kV BIL, 60 Hertz
- Outdoor class, 105°C insulation system
- Single, dual or multiple taps available
- Window diameter: 8.75" (222 mm)
- Electrical specifications:
  - Strike: 11.75" (298 mm)
  - Creep: 26.0" (660 mm)
- Approximate weight:
  - Single core: 160 lbs. (73 kg)
  - Dual core: 220 lbs. (100 kg)
- Operating temperature range: -50°C through +65°C

### Application

The LG-25-6513 and LGX-25-6513 outdoor current transformers are designed for use on substation structures where high current, large diameter primary conductors are used. Designed for use with rectangular or tubular large primary conductors over 4" in diameter, there are no bar type options available. For applications where smaller window diameters or primary bars are desired, see LG(X)-25-585, LG-25-879, or KOTD-150.

For applications with an uninsulated conductor, connect the pigtail lead to the conductor to equalize the voltage in the window area for corona prevention.

If a fully insulated bus (one that has an outer ground sheathing) is used, an equalizing potential connection is not required.

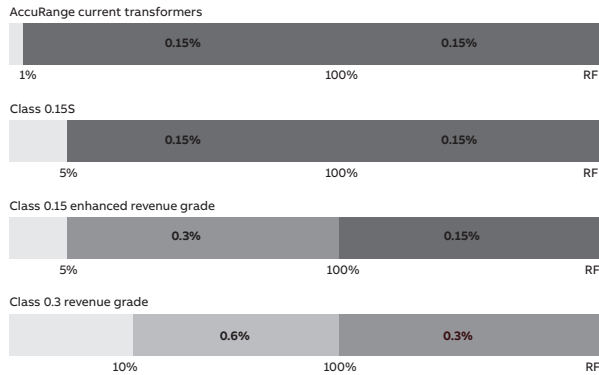
The LGX-25-6513 is specifically for extended range high accuracy metering duty only.

### Construction features

The primary insulator is a cycloaliphatic epoxy (CEP) molded sleeve with a conductive inner lining to prevent corona. The CEP primary tube and secondary winding are encapsulated in a polyurethane resin for outdoor use. An anodized aluminum nameplate is laser etched and adhered to the body of the unit, adjacent to the secondary junction box. Bright decals indicating the primary rated current are affixed to each side.

### High accuracy and extended range

The LGX-25-6513 is part of ABB's AccuRange® current transformer family and delivers high accuracy and stable performance over a wide load swing, making it a great fit for variable load applications. Accuracy is guaranteed to be +/- 0.15% from 1% of nominal current through rating factor. ABB's extended range units deliver savings through improved accuracy metering and reduced inventory.



### Terminals

The secondary terminals are 1/4"-20 UNC silicon bronze studs with associated hardware, suitable for solid or stranded copper wire up to No. 8 AWG or ring tongue terminals sized for 1/4" or M7/M8 stud. Hardware should be tightened to compress lock washers but is not to exceed 50 in-lbF (5.6 N-m).

### Mounting

The aluminum baseplate is 0.25" thick (6.4 mm) plain finish aluminum with 0.56" (14 mm) holes, suitable for mounting in the upright or underhung positions. It may also be mounted cantilever with the bus running

vertically. In the case of cantilever mounting with bus running horizontally, there is a special baseplate ordering option that must be specified at the time of purchase. Add "-H" to the end of the style number.

### Junction box

Secondary terminals are housed inside an injection molded thermoplastic junction box supplied with two (2) 1"-11.5 NPT hubs. Blank plugs are provided and must be replaced with proper fittings to maintain weather tight protection. A removable cover is attached with four (4) sealing-type thumb screws.

### Test reports

Test reports are available and can be e-mailed upon request.

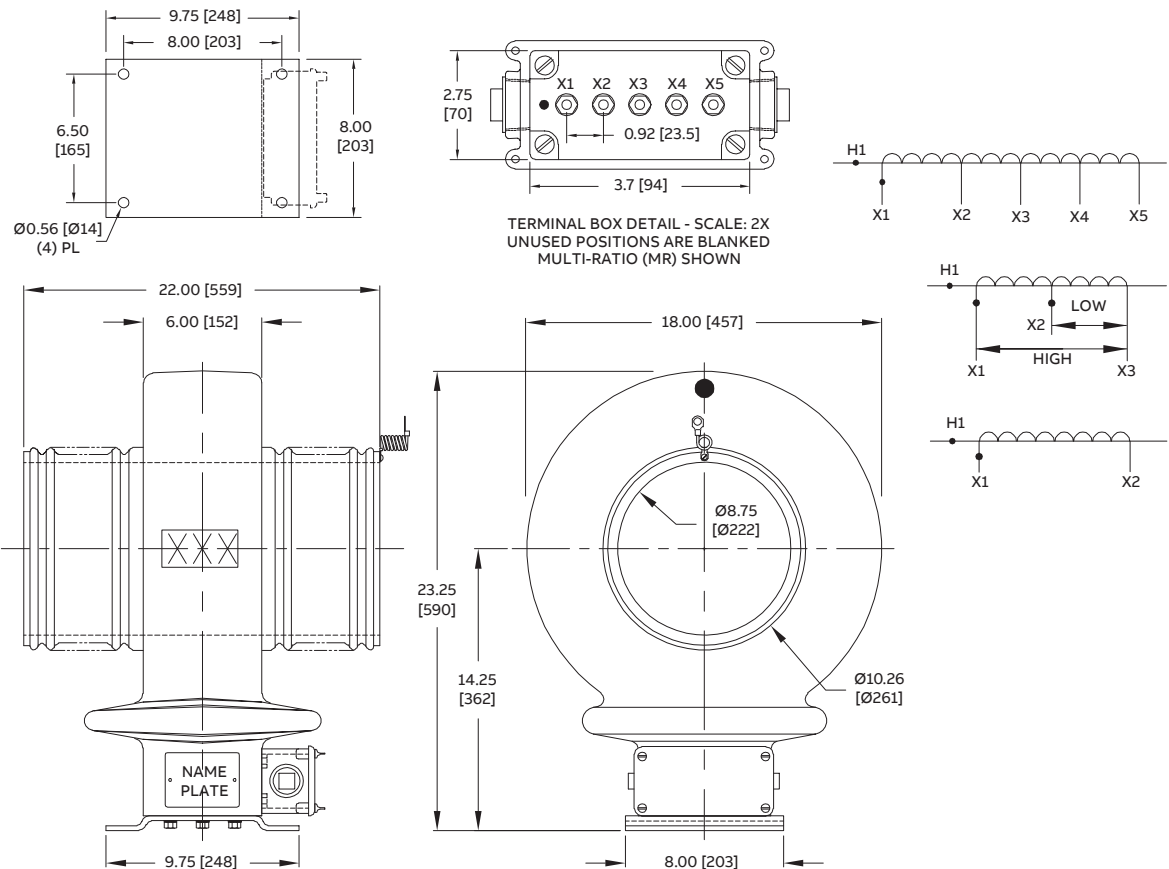
### Standards

This unit meets or exceeds all requirements of IEEE C57.13-2016 and can be tested to other standards as requested.

### Options

Consult factory for other special needs such as additional ratios, multiple cores with the same or mixed ratios, etc.

### Dimensions (inches [mm])



**Selection guide for LG-25-6513 with 5 A secondary**

| Primary current rating | Rating factor @ 30° C | IEEE metering accuracy class @ 60 Hz | IEEE relaying accuracy class @ 60 Hz | Style number (window-type) |
|------------------------|-----------------------|--------------------------------------|--------------------------------------|----------------------------|
| 200                    | 2.0                   | 0.6B-0.2                             | C50                                  | F040200S1                  |
| 300                    | 2.0                   | 0.6B-0.2                             | C75                                  | F040300S1                  |
| 400                    | 2.0                   | 0.3B-0.5                             | C100                                 | F040400S1                  |
| 500                    | 2.0                   | 0.3B-0.5                             | C125                                 | F040500S1                  |
| 600                    | 2.0                   | 0.3B-0.5                             | C150                                 | F040600S1                  |
| 800                    | 2.0                   | 0.3B-0.9                             | C200                                 | F040800S1                  |
| 1000                   | 2.0                   | 0.3B-1.8                             | C250                                 | F041000S1                  |
| 1200                   | 2.0                   | 0.3B-1.8                             | C300                                 | F041200S1                  |
| 1500                   | 2.0                   | 0.3B-1.8                             | C400                                 | F041500S1                  |
| 2000                   | 2.0                   | 0.3B-1.8                             | C500                                 | F042000S1 <sup>1</sup>     |
| 2500                   | 2.0                   | 0.3B-1.8                             | C600                                 | F042500S1                  |
| 3000                   | 2.0                   | 0.3B-1.8                             | C800                                 | F043000S1 <sup>1</sup>     |
| 4000                   | 1.5                   | 0.3B-1.8                             | C800                                 | F044000S1                  |
| 5000                   | 1.5                   | 0.3B-1.8                             | C800                                 | F045000S1                  |
| 6000                   | 1.0                   | 0.3B-1.8                             | C800                                 | F046000S1 <sup>1</sup>     |
| 8000                   | 1.0                   | 0.3B-1.8                             | C800                                 | F048000S1                  |
| 10,000                 | 1.0                   | 0.3B-1.8                             | C800                                 | F0410000S1                 |
| <b>Dual-ratio</b>      |                       |                                      |                                      |                            |
| 200/400                | 2.0/2.0               | 0.6B-0.2/0.3B-0.5                    | C50/C100                             | F040200D1                  |
| 300/600                | 2.0/2.0               | 0.6B-0.2/0.3B-0.5                    | C75/C150                             | F040300D1                  |
| 400/800                | 2.0/2.0               | 0.3B-0.5/0.3B-0.9                    | C100/C200                            | F040400D1                  |
| 500/1000               | 2.0/2.0               | 0.3B-0.5/0.3B-1.8                    | C150/C300                            | F040500D1                  |
| 600/1200               | 2.0/2.0               | 0.3B-0.5/0.3B-1.8                    | C150/C300                            | F040600D1                  |
| 1000/2000              | 2.0/2.0               | 0.3B-0.5/0.3B-1.8                    | C200/C400                            | F041000D1                  |
| 1500/3000              | 2.0/2.0               | 0.3B-0.5/0.3B-1.8                    | C400/C800                            | F041500D1 <sup>1</sup>     |
| 2000/4000              | 2.0/1.5               | 0.3B-0.5/0.3B-1.8                    | C400/C800                            | F042000D1 <sup>1</sup>     |
| 3000/6000              | 2.0/1.5               | 0.3B-0.5/0.3B-1.8                    | C400/C800                            | F043000D1 <sup>1</sup>     |
| <b>Multi-ratio</b>     |                       |                                      |                                      |                            |
| 600                    | 2.0                   | 0.3B-0.5                             | C150                                 | F040600M1                  |
| 1200                   | 2.0                   | 0.3B-1.8                             | C300                                 | F041200M1                  |
| 2000                   | 2.0                   | 0.3B-1.8                             | C500                                 | F042000M1                  |
| 3000                   | 2.0                   | 0.3B-1.8                             | C800                                 | F043000M1                  |
| 4000                   | 1.5                   | 0.3B-1.8                             | C800                                 | F044000M1                  |
| 5000                   | 1.5                   | 0.3B-1.8                             | C800                                 | F045000M1                  |

1 - Approved for revenue metering by Measurement Canada, File AE-1104

Thermal rating ( $I_{th}$ ): 85 times nominal for 1 second. Mechanical rating ( $I_{mech}$ ): 220 times nominal first peak.

Additional styles available upon request. Contact your ABB sales representative or call +1-252-827-3212 for more information.

**Selection guide for LGX-25-6513 with 5 A secondary**

| <b>Primary current rating</b> | <b>Rating factor @ 30° C</b> | <b>IEEE metering accuracy class @ 60 Hz</b> | <b>Metered current range (A)</b> | <b>Style number (window-type)</b> |
|-------------------------------|------------------------------|---|----------------------------------|-----------------------------------|
| 400                           | 4.0                          | 0.15SB-0.5/0.3SB-0.9                        | 4 - 1600                         | F040400X1NC                       |
| 500                           | 4.0                          | 0.15SB-0.9/0.3SB-1.8                        | 5 - 2000                         | F040500X1NC                       |
| 600                           | 4.0                          | 0.15SB-0.9/0.3SB-1.8                        | 6 - 2400                         | F040600X1NC                       |
| 800                           | 4.0                          | 0.15SB-0.9/0.3SB-1.8                        | 8 - 3200                         | F040800X1NC                       |
| 1000                          | 4.0                          | 0.15SB-1.8                                  | 10 - 4000                        | F041000X1NC                       |
| 1200                          | 4.0                          | 0.15SB-1.8                                  | 12 - 4800                        | F041200X1NC                       |
| 1500                          | 3.0                          | 0.15SB-1.8                                  | 15 - 4500                        | F041500X1NC                       |
| 2000                          | 3.0                          | 0.15SB-1.8                                  | 20 - 6000                        | F042000X1NC                       |
| 3000                          | 2.0                          | 0.15SB-1.8                                  | 30 - 6000                        | F043000X1NC                       |

Thermal rating ( $I_{th}$ ): 150 times nominal for 1 second. Mechanical rating ( $I_{mech}$ ): 400 times nominal first peak.  
Additional styles available upon request. Contact your ABB sales representative or call +1-252-827-3212 for more information.

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