

LG-15-6513 and LGX-15-6513

Outdoor station post current transformers



The LG-15-6513 and LGX-15-6513 outdoor current transformers are designed for use on substation structures where high current, large diameter primary conductors are used.

Product features

- 15 kV, 110 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: 10.75" (273 mm)
 - Creep: 22.0" (560 mm)
- Approximate weight:
 - Single core: 150 lbs. (68 kg)
 - Dual core: 210 lbs. (96 kg)
- Operating temperature range: -50°C through +65°C

Application

The LG-15-6513 and LGX-15-6513 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)-15-585, LG-15-879 or KOTD-110.

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-15-6513 is specifically designed for extended range, high accuracy metering duty only.

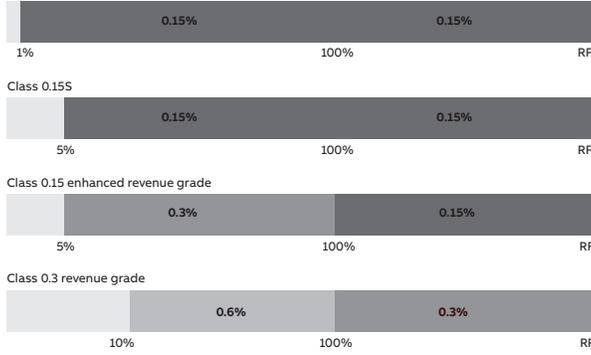
Construction features

The primary insulator is a cycloaliphatic epoxy (CEP) molded sleeve with a conductive inner lining to prevent corona. The CEP primary tube and the 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-15-6513 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.

AccuRange current transformers



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.

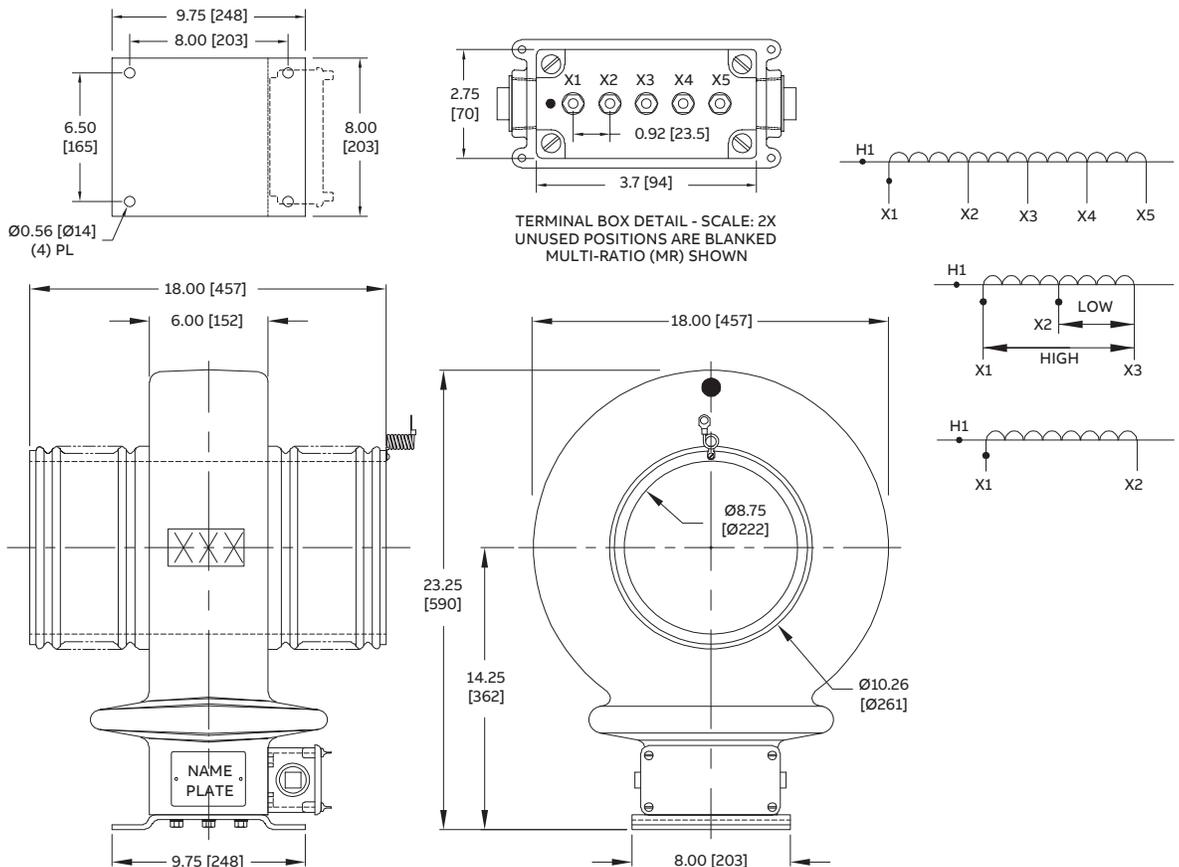
Standards

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-15-6513 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	D040200S1
300	2.0	0.6B-0.2	C75	D040300S1
400	2.0	0.3B-0.5	C100	D040400S1
500	2.0	0.3B-0.5	C125	D040500S1
600	2.0	0.3B-0.5	C150	D040600S1
800	2.0	0.3B-0.9	C200	D040800S1
1000	2.0	0.3B-1.8	C250	D041000S1
1200	2.0	0.3B-1.8	C300	D041200S1
1500	2.0	0.3B-1.8	C400	D041500S1
2000	2.0	0.3B-1.8	C500	D042000S1 ¹
2500	2.0	0.3B-1.8	C600	D042500S1
3000	2.0	0.3B-1.8	C800	D043000S1 ¹
4000	1.5	0.3B-1.8	C800	D044000S1 ¹
5000	1.5	0.3B-1.8	C800	D045000S1
6000	1.0	0.3B-1.8	C800	D046000S1 ¹
8000	1.0	0.3B-1.8	C800	D048000S1
10,000	1.0	0.3B-1.8	C800	D0410000S1
Dual-ratio				
200/400	2.0/2.0	0.6B-0.2/0.3B-0.5	C50/C100	D040200D1
300/600	2.0/2.0	0.6B-0.2/0.3B-0.5	C75/C150	D040300D1
400/800	2.0/2.0	0.3B-0.5/B-0.9	C100/C200	D040400D1
500/1000	2.0/2.0	0.3B-0.5/B-1.8	C150/C300	D040500D1
600/1200	2.0/2.0	0.3B-0.5/B-1.8	C150/C300	D040600D1
1000/2000	2.0/2.0	0.3B-1.8/B-1.8	C200/C400	D041000D1
1500/3000	2.0/2.0	0.3B-1.8/B-1.8	C400/C800	D041500D1 ¹
2000/4000	2.0/1.5	0.3B-1.8/B-1.8	C400/C800	D042000D1 ¹
3000/6000	2.0/1.5	0.3B-1.8/B-1.8	C400/C800	D043000D1 ¹
Multi-ratio				
600	2.0	0.3B-0.5	C150	D040600M1
1200	2.0	0.3B-1.8	C300	D041200M1
2000	2.0	0.3B-1.8	C500	D042000M1
3000	2.0	0.3B-1.8	C800	D043000M1
4000	1.5	0.3B-1.8	C800	D044000M1
5000	1.5	0.3B-1.8	C800	D045000M1

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-15-6513 with 5 A secondary

Primary current rating	Rating factor @ 30° C	IEEE metering accuracy class @ 60 Hz	Metered current range (A)	Style number (window-type)
400	4.0	0.15SB-0.5/0.3SB-0.9	4 - 1600	D040400X1NC
500	4.0	0.15SB-0.9/0.3SB-1.8	5 - 2000	D040500X1NC
600	4.0	0.15SB-0.9/0.3SB-1.8	6 - 2400	D040600X1NC
800	4.0	0.15SB-0.9/0.3SB-1.8	8 - 3200	D040800X1NC
1000	4.0	0.15SB-1.8	10 - 4000	D041000X1NC
1200	4.0	0.15SB-1.8	12 - 4800	D041200X1NC
1500	3.0	0.15SB-1.8	15 - 4500	D041500X1NC
2000	3.0	0.15SB-1.8	20 - 6000	D042000X1NC
3000	2.0	0.15SB-1.8	30 - 6000	D043000X1NC

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.

ABB Inc.
 3022 NC 43 North
 Pinetops, NC 27864
 Phone: +1-252-827-3212

We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB Inc. does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

We reserve all rights in this document and in the subject matter and illustrations contained therein. Any reproduction, disclosure to third parties or utilization of its contents—in whole or in parts—is forbidden without prior written consent of ABB Inc. Copyright© 2021 ABB. All rights reserved.