

**Padmount Transformer,
Installation and Grounding, 3Φ, 75-2500 kVA**



1. Scope

This construction standard provides the requirements for the installation of three phase, 75-2500 kVA, padmount transformers and related grounding.

2. Application

This document provides direction to SCL contractors and customers about how to properly install and ground transformers for SCL padmount services.

3. Construction Notes

- 3.1. If conduits are steel, they shall be grounded using a cable to pipe ground clamp.
- 3.2 Taping of the transformer spades is not required.
- 3.3 If limiters are to be installed (see DU11-4), only two cable to flat (spade) limiters may be attached due to the diameter of the limiter.
- 3.4 Install Locks. Locks are available from the Tool Room. Use NAS 10 for URD and NW for Network.
- 3.5 If grounding is under concrete or asphalt, all connections shall be done by exothermic welding (CADWELD or equivalent).

4. Material List

Item	Quantity	Description		Stock No.
1	10 ft*	WIRE, bare Cu, stranded	#2 (75 – 500 kVA)	610434
			2/0 (750 – 2500 kVA)	610425
2	10 ft*	WIRE, bare Cu, stranded	#2	610434
3	3	SPLICE, compression	#2	669379
4	3	CONNECTOR, Crimpit	#2 to #2	677326

* additional quantities may be required

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CONSTRUCTION STANDARD

Padmount Transformer, Installation and Grounding, 3Φ, 75-2500 kVA

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4. Material List, continued

Item	Quantity	Description		Stock No.
5	2*	CONNECTOR, two bolt tap, parallel type	#2 stranded to 2/0 stranded	669379
6	4*	TERMINAL, compression, Cu (lug)	#2	677071
			2/0	677077
			4/0	677081
			350	677087
			500	677091
			750	677100
7	0*	CLAMP, Ground, cable to pipe	#4 solid to 2/0 stranded for 2" IPS	676283
			#4 solid to 2/0 stranded for 3" IPS	676285
			#4 solid to 2/0 stranded for 4" IPS	676286
8	3	DEADBREAK ELBOW KIT for 28 kV	1/0 AWG	686416

* additional quantities may be required

Figure 1, Padmount Transformer Connections

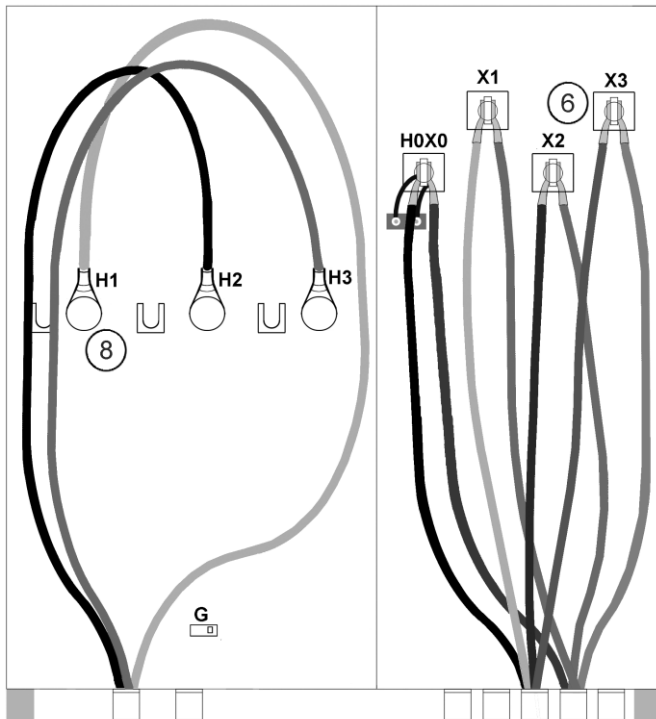


Figure 2, Padmount Transformer Grounding Connections

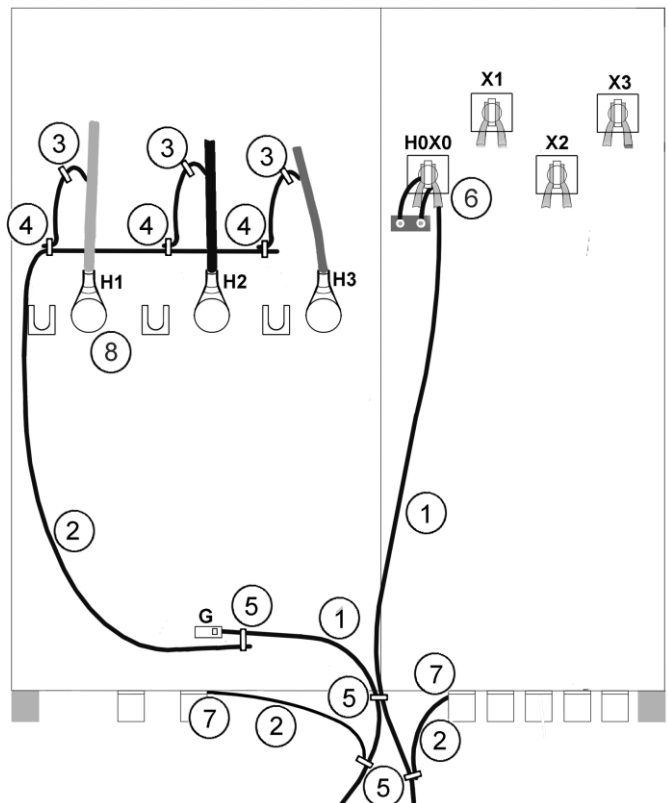
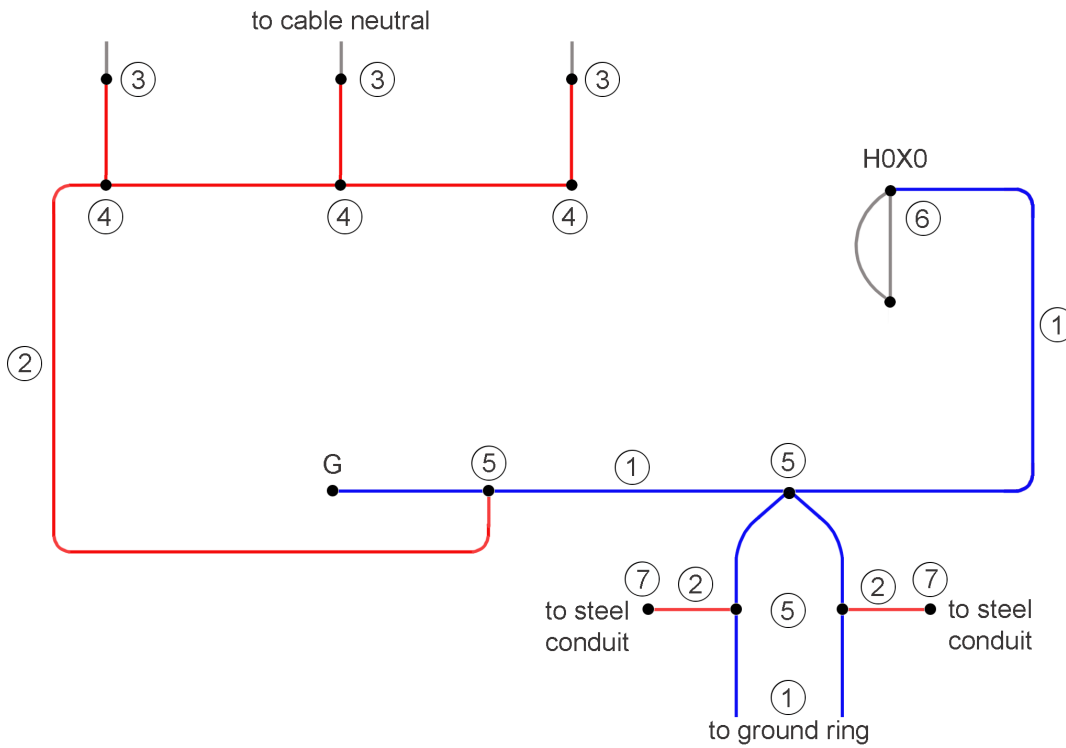


Figure 3, Padmount Transformer Grounding One Line



5. References

9302.42; "Transformer Secondary Connection, Direct or with Tap Box;" Design Standard; SCL

DU11-4; "Cable Limiters – Distribution;" Construction Guideline; SCL

6. Sources

0724.50; "Customer Requirements for Padmount Transformer Services, Looped Radial System;" Construction Standard; SCL

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