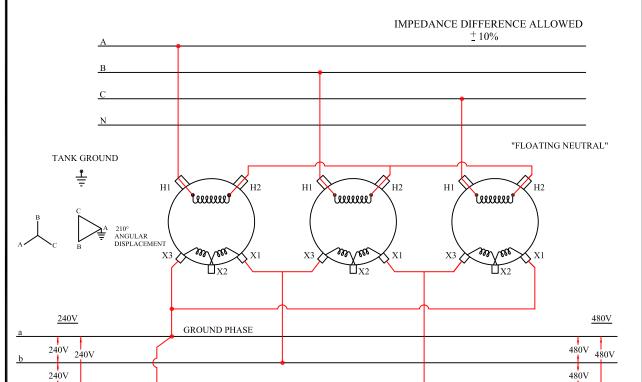


## PRIMARY: WYE-connected

Each transformer is energized from a different phase of the primary circuit. Usually, the bushing used to connect to the phase conductor is the H1 bushing. (Note: the H2 bushing is NOT grounded. Grounding the H2 bushing of the Wye-Delta bank can create problems that can cause damage to the transformers). The H2 bushings are tied together and left ungrounded. This is referred to as the "floating neutral" or "floating phase." The H2 bus should be treated as an energized conductor.



## SECONDARY: DELTA-connected

This connection is used to supply three-phase power loads. It may be either 240V or 480V. Remove the ground straps from the X2 bushings on all transformers.

<u>Caution</u>: The grounded phase must be matched to the same grounded phase in the customer's equipment. Also, for the purposes of metering, the grounded phase is left out of the CTs. Please contact GP&L personnel in the Metering Department to help in identifying which phase is the grounded phase.

<u>Caution</u>: When working with an already existing Wye-Delta bank, if the high-side bushings are grounded, please rewire the high-side bushings as a floating neutral, per this standard.

TITLE:

<u>Caution</u>: The standard is to ground "A-" phase. On existing installations, the grounded phase may not be "A-phase." (Use caution and verify)

DRAWN BY:	DATE:	APPROVED BY:
SJ/JC	7/18/12	
REVISED BY:	DATE:	APPROVED BY:
JB/DM	11/18/13	

WYE-DELTA 3-WIRE



STANDARD NO.: OH-1110C WYE/DELTA 3-W

## **Construction Standard Material**

Title:

OH-1110 Wye - Delta 3 Wire

Rev. Date: 11/13/2011

Pic#	Description	WAREHOUSE #	Qty	UOM
1	BOLT MACHINE 3/4" X 14" W/NUT	285-08-10814	1	EA
2	WASHER SQUARE 3/4"	285-08-15315	1	EA
3	CABLE, 5 KV # 2 AWG OKOGUARD	280-42-50005	30	FT
4	ARRESTOR LIGHTING MOV TYPE 10KV, POLYMER	286-04-10010	3	EA
5	CONNECTOR SPLIT BOLT CU TO CU - #6 SOL	285-18-18615	1	EA
6	ROD GROUNDING 5/8" X 8'	285-36-15108	1	EA
7	BRACKET LIGHTNING ARRESTOR OH1	285-38-19191	3	EA
8	BIRD GUARD COVER, FARGO GS-555	285-39-24101	6	EA
9	CUTOUT 100 AMP 15 KV	286-19-10250	3	EA
10	CLAMP GROUND ROD 5/8"	285-13-16025	1	EA
11	LUG TRANSFORMER GROUNDING 8 SOL TO 2/O STR	285-49-17325	1	EA
12	MOUNT TRANSFORMER CLUSTER SIMPLEX TYPE	285-38-15165	1	EA
13	BOLT MACHINE 5/8" X 14" W/NUT	285-08-10788	1	EA
14	WASHER SPRING DOUBLE COIL 5/8"	285-08-85430	1	EA
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19				
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**Garland Power & Light** 



OH-1110 Wye - Delta 3 Wire