GENERAL

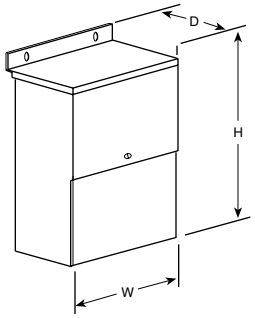
ACME® TRANSFORMER™ GENERAL INFORMATION

Design Figures, Wiring Diagrams, Accessories, Specification Guides, Industry Standards and Alphanumerical Catalog Number Index

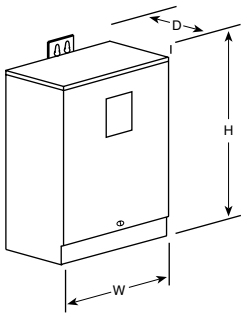
Design Figures

Sections I, II, III & IV

These drawings are for reference only.
Contact factory for certified drawings.



Design A



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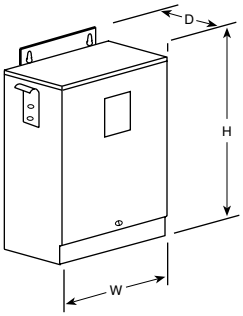

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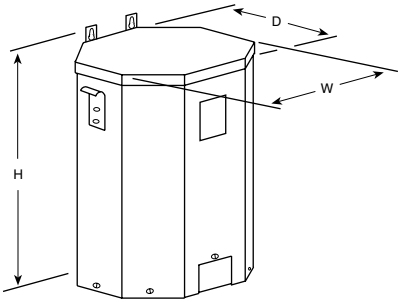
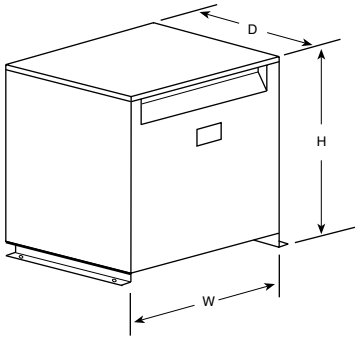
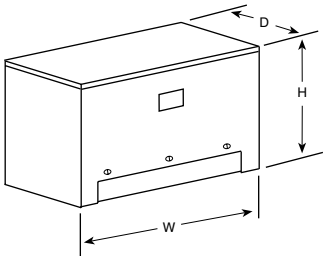


Design D



Design E



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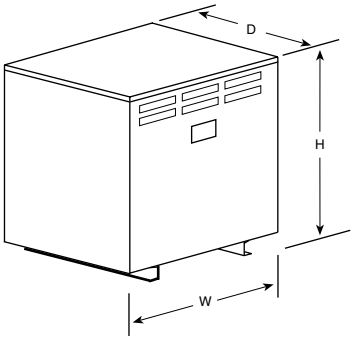
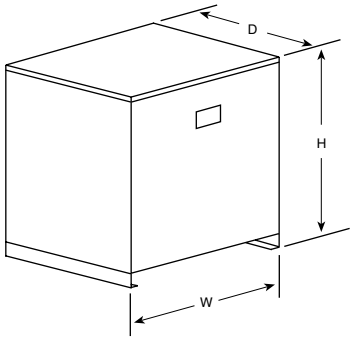
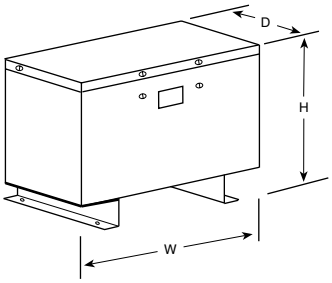


Design G



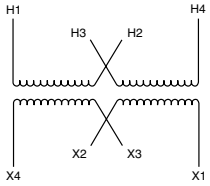
Design H



Design I

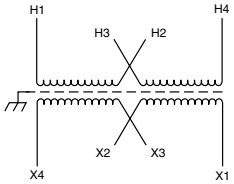
Wiring DiagramsSections I, II, III & IV

1
PRIMARY: 240 X 480
SECONDARY: 120/240
TAPS: None



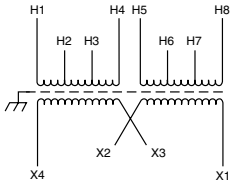
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
480	H1-H4	H2 to H3	
240	H1-H3 & H2-H4		
Secondary Volts			
240		X2 to X3	X1-X4
120/240		X2 to X3	X1-X2-X4
120		X1 to X3 X2 to X4	X1-X4

2
PRIMARY: 240 X 480
SECONDARY: 120/240
TAPS: None



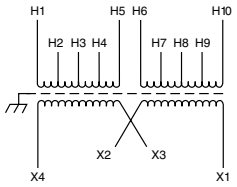
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
480	H1-H4	H2 to H3	
240	H1-H3 & H2-H4		
Secondary Volts			
240		X2 to X3	X1-X4
120/240		X2 to X3	X1-X2-X4
120		X1 to X3 X2 to X4	X1-X4

3
PRIMARY: 240 X 480
SECONDARY: 120/240
TAPS: 2, 2½% ANFC, 2, 2½% BNFC



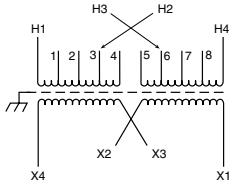
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
252	H1-H8	H1 to H5 H4 to H8	
240	H1-H7	H1 to H5 H3 to H7	
228	H1-H6	H1 to H5 H2 to H6	
504	H1-H8	H4 to H5	
492	H1-H8	H3 to H5	
480	H1-H7	H3 to H5	
468	H1-H7	H2 to H5	
456	H1-H6	H2 to H5	
Secondary Volts			
240		X2 to X3	X1-X4
120/240		X2 to X3	X1-X2-X4
120		X1 to X3 X2 to X4	X1-X4

4
PRIMARY: 240 X 480
SECONDARY: 120/240
2, 2½% ANFC, 4, 2½% BNFC



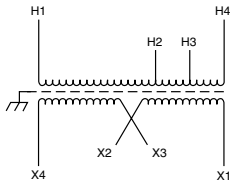
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
216	H1-H10	H1 to H9 H10 to H2	
228	H1-H10	H1 to H8 H10 to H3	
240	H1-H10	H1 to H7 H10 to H4	
252	H1-H10	H1 to H6 H10 to H5	
432	H1-H10	H2 to H9	
444	H1-H10	H3 to H9	
456	H1-H10	H3 to H8	
468	H1-H10	H4 to H8	
480	H1-H10	H4 to H7	
492	H1-H10	H5 to H7	
504	H1-H10	H5 to H6	
Secondary Volts			
240		X2 to X3	X1-X4
120/240		X2 to X3	X1-X3-X4
120		X1 to X3 X2 to X4	X1-X4

5
PRIMARY: 240 X 480
SECONDARY: 120/240
TAPS: 2, 2½% ANFC, 2, 2½% BNFC



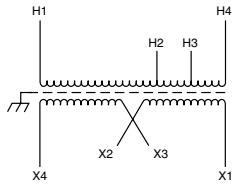
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
216	H1-H4	H1, H3, 8 & H2, H4, 1	
228	H1-H4	H1, H3, 7 & H2, H4, 2	
240	H1-H4	H1, H3, 6 & H2, H4, 3	
252	H1-H4	H1, H3, 5 & H2, H4, 4	
432	H1-H4	H2, 1 & H3, 8	
444	H1-H4	H2, 2 & H3, 8	
456	H1-H4	H2, 2 & H3, 7	
468	H1-H4	H2, 3 & H3, 7	
480	H1-H4	H2, 3 & H3, 6	
492	H1-H4	H2, 4 & H3, 6	
504	H1-H4	H2, 4 & H3, 5	
Secondary Volts			
240		X2 to X3	X1-X4
120/240		X2 to X3	X1-X2-X4
120		X1 to X3 X2 to X4	X1-X4

6
PRIMARY: 208
SECONDARY: 120/240
TAPS: 2, 5% BNFC



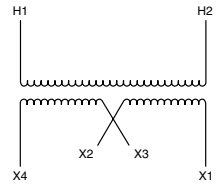
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
208	H1 & H4		
198	H1 & H3		
187	H1 & H2		
Secondary Volts			
240		X2 to X3	X1-X4
120/240		X2 to X3	X1-X2-X4
120		X1 to X3 X2 to X4	X1-X4

7
PRIMARY: 277
SECONDARY: 120/240
TAPS: 2, 5% BNFC



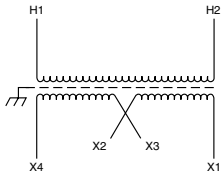
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
277	H1 & H4		
263	H1 & H3		
250	H1 & H2		
Secondary Volts			
240		X2 to X3	X1-X4
120/240		X2 to X3	X1-X2-X4
120		X1 to X3 X2 to X4	X1-X4

8
PRIMARY: 600
SECONDARY: 120/240
TAPS: None



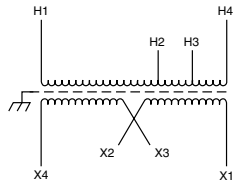
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
600	H1-H2		
Secondary Volts			
240		X2 to X3	X1-X4
120/240		X2 to X3	X1-X2-X4
120		X1 to X3 X2 to X4	X1-X4

9
PRIMARY: 600
SECONDARY: 120/240
TAPS: None



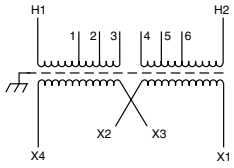
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
600	H1-H2		
Secondary Volts			
240		X2 to X3	X1-X4
120/240		X2 to X3	X1-X2-X4
120		X1 to X3 X2 to X4	X1-X4

10
PRIMARY: 600
SECONDARY: 120/240
TAPS: 2, 5% BNFC



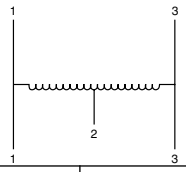
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
600	H1-H4		
570	H1-H3		
540	H1-H2		
Secondary Volts			
240		X2 to X3	X1-X4
120/240		X2 to X3	X1-X2-X4
120		X1 to X3 X2 to X4	X1-X4

11
PRIMARY: 600
SECONDARY: 120/240
TAPS: 2, 2½% ANFC, 4, 2½% BNFC



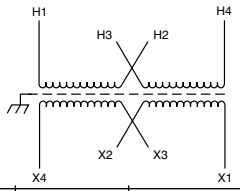
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
540	H1-H2	1-6	
555	H1-H2	1-5	
570	H1-H2	2-6	
585	H1-H2	2-5	
600	H1-H2	3-5	
615	H1-H2	2-4	
635	H1-H2	3-4	
Secondary Volts			
240		X2 to X3	X1-X4
120/240		X2 to X3	X1-X2-X4
120		X1 to X3 X2 to X4	X1-X4

12
PRIMARY: 240
SECONDARY: 120/240
TAPS: None



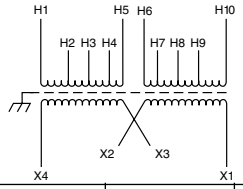
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
240	1-3		
Secondary Volts			
240			1-3
120			1-2 or 2-3
120/240			1-2-3

13
PRIMARY: 120 x 240
SECONDARY: 120/240
TAPS: None



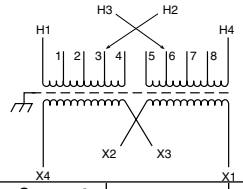
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
240	H1-H4	H2 to H3	
120	H1-H3 & H2-H4		
Secondary Volts			
240		X2 to X3	X1-X4
120/240		X2 to X3	X1-X2-X4
120		X1 to X3 X2 to X4	X1-X4

14
EXPORT MODEL
PRIMARY: 190-220 x 380-440
SECONDARY: 120/240



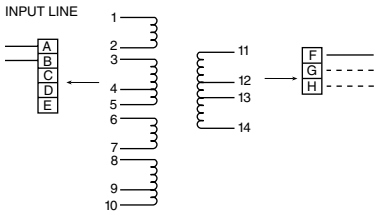
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
190	H1 & H7	H1 to H6 H2 to H7	
200	H1 & H8	H1 to H6 H3 to H8	
208	H1 & H9	H1 to H6 H4 to H9	
220	H1 & H10	H1 to H6 H5 to H10	
380	H1 & H7	H2 & H6	
400	H1 & H8	H3 & H6	
416	H1 & H9	H4 & H6	
440	H1 & H10	H5 & H6	
Secondary Volts			
240		X2 to X3	X1-X4
120/240		X2 to X3	X1-X2-X4
120		X1 to X3 X2 to X4	X1-X4

15 EXPORT MODEL
PRIMARY: 190-220 x 380-440
SECONDARY:120/240



Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
190	H1 & H4	H1, H3, 8 & H2, H4, 1	
200	H1 & H4	H1, H3, 7 & H2, H4, 2	
208	H1 & H4	H1, H3, 6 & H2, H4, 3	
220	H1 & H4	H1, H3, 5 & H2, H4, 4	
380	H1 & H4	H2, H3, 1, 8	
400	H1 & H4	H2, H3, 2, 7	
416	H1 & H4	H2, H3, 3, 6	
440	H1 & H4	H2, H3, 4, 5	
Secondary Volts			
240		X2 to X3	X1-X4
120/240		X2 to X3	X1-X2-X4
120		X1 to X3 X2 to X4	X1-X4

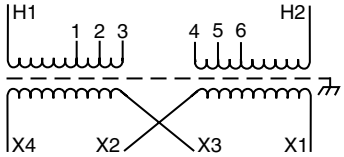
16 POWER LINE CONDITIONER



Input ConnectionsInsulate		& Isolate
Volts	**Connect**	
120	1, 3, 6, 8 to A 2, 5, 7, 10 to B	4, 9
208	1, 6 to A 4, 9 to B 2, 3 to C 7, 8 to D	5, 10
240	1, 6 to A 5, 10 to B 2, 3 to C 7, 8 to D	4, 9
480	1 to A 10 to B 2, 3 to C 5, 6 to D 7, 8 to E	4, 9
Output Connections		**Output Lines To**
Volts	**Connect**	
120	11 to F 12 to G 14 to H	F, G
120/240	11 to F 12 to G 14 to H	F, G, H
208	11 to F 12 to G 13 to H	F, H
240	11 to F 12 to G 14 to H	F, H

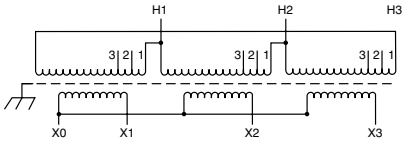
NOTE: To prevent externally shorting, all leads marked "INSULATE" must be individually capped with wire nuts or equivalent. Insulate leads individually!

17 PRIMARY: 208 Volts
SECONDARY: 120/240 Volts
TAPS:



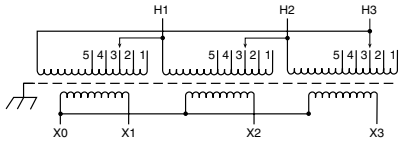
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
218	H1 & H2	3 to 4	
213	H1 & H2	2 to 4	
208	H1 & H2	3 to 5	
203	H1 & H2	2 to 5	
198	H1 & H2	1 to 5	
192	H1 & H2	2 to 6	
187	H1 & H2	1 to 6	
Secondary Volts			
240		X2 to X3	X1-X4
120/240		X2 to X3	X1-X2-X4
120		X1 to X3 X2 to X4	X1-X4

18 PRIMARY: 240 Volts Delta
SECONDARY: 208Y/120 Volts
TAPS: 2, 5% BNFC



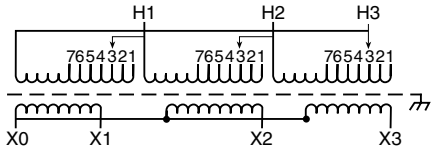
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
240	H1, H2, H3	1	
228	H1, H2, H3	2	
216	H1, H2, H3	3	
Secondary Volts			
208			X1, X2, X3
120 1 phase			X1 to X0 X2 to X0 X3 to X0

19 PRIMARY: 240 Volts Delta
SECONDARY: 208Y/120 Volts
TAPS: 2, 2½% ANFC, 2, 2½% BNFC



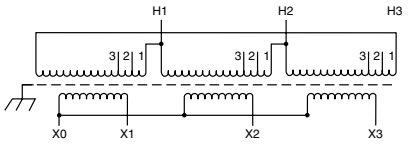
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
252	H1, H2, H3	1	
246	H1, H2, H3	2	
240	H1, H2, H3	3	
234	H1, H2, H3	4	
228	H1, H2, H3	5	
Secondary Volts			
208			X1, X2, X3
120 1 phase			X1 to X0 X2 to X0 X3 to X0

20 PRIMARY: 380 Volts Delta
SECONDARY: 220Y/127 Volts
TAPS: 2, 2½% ANFC, 4, 2½% BNFC



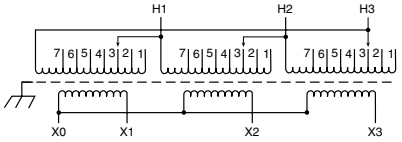
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
399	H1, H2, H3	1	
390	H1, H2, H3	2	
380	H1, H2, H3	3	
371	H1, H2, H3	4	
361	H1, H2, H3	5	
352	H1, H2, H3	6	
342	H1, H2, H3	7	
Secondary Volts			
220			X1, X2,X3
127 1 phase			X1 to X0 X2 to X0 X3 to X0

21
PRIMARY: 480 Volts Delta
SECONDARY: 208Y/120 Volts
TAPS: 2, 5% BNFC



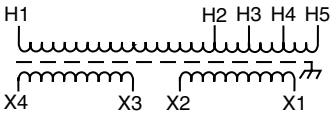
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
480	H1, H2, H3	1	
456	H1, H2, H3	2	
432	H1, H2, H3	3	
Secondary Volts			
208			X1, X2, X3
120 1 phase			X1 to X0 X2 to X0 X3 to X0

22
PRIMARY: 480 Volts Delta
SECONDARY: 208Y/120 Volts
TAPS: 2, 2½% ANFC, 4, 2½% BNFC



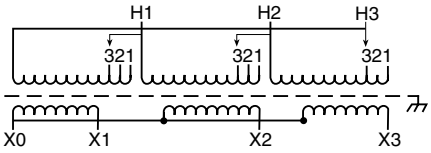
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
504	H1, H2, H3	1	
492	H1, H2, H3	2	
480	H1, H2, H3	3	
468	H1, H2, H3	4	
456	H1, H2, H3	5	
444	H1, H2, H3	6	
432	H1, H2, H3	7	
Secondary Volts			
208			X1, X2, X3
120 1 phase			X1 to X0 X2 to X0 X3 to X0

23
PRIMARY: 120/208/240/277 Volts
SECONDARY: 120/240 Volts



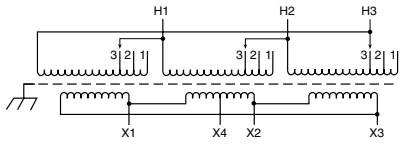
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
277	H1, H5		
240	H1, H4		
208	H1, H3		
120	H1, H2		
Secondary Volts			
120		X1 to X3 X2 to X4	X1-X4
120/240		X2 to X3	X1-X2-X4
240		X2 to X3	X1-X4

24
PRIMARY: 380 Volts Delta
SECONDARY: 220Y/127 Volts
TAPS: 2, 5% BNFC



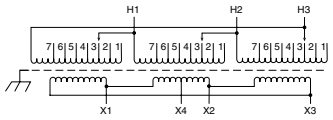
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
380	H1, H2, H3	1	
361	H1, H2, H3	2	
342	H1, H2, H3	3	
Secondary Volts			
220			X1, X2, X3
127 1 phase			X1 to X0 X2 to X0 X3 to X0

25
PRIMARY: 480 Volts Delta
SECONDARY: 240 Volts Delta/120 Volts
TAPS: 2, 5% BNFC



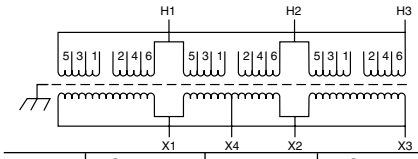
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
480	H1, H2, H3	1	
456	H1, H2, H3	2	
432	H1, H2, H3	3	
Secondary Volts			
240			X1, X2, X3
120			X1, X4 or X2, X4

26
PRIMARY: 480 Volts Delta
SECONDARY: 240 Volts Delta/120 Volts
TAPS: 2, 2½% ANFC, 4, 2½% BNFC



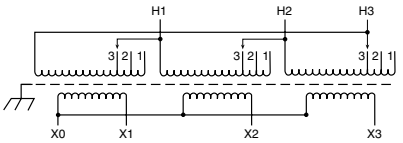
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
504	H1, H2, H3	1	
492	H1, H2, H3	2	
480	H1, H2, H3	3	
468	H1, H2, H3	4	
456	H1, H2, H3	5	
444	H1, H2, H3	6	
432	H1, H2, H3	7	
Secondary Volts			
240			X1, X2, X3
120			X1, X4 or X2, X4

27
PRIMARY: 480 Volts Delta
SECONDARY: 240 Volts Delta/120 Volts
TAPS: 2, 2½% ANFC, 4, 2½% BNFC



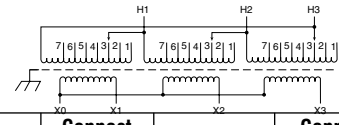
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
504	H1, H2, H3	1 to 2	
492	H1, H2, H3	2 to 3	
480	H1, H2, H3	1 to 4	
468	H1, H2, H3	3 to 4	
456	H1, H2, H3	1 to 6	
444	H1, H2, H3	3 to 6	
432	H1, H2, H3	5 to 6	
Secondary Volts			
240			X1, X2, X3
120			X1, X4 or X2, X4

28
PRIMARY: 600 Volts Delta
SECONDARY: 208Y/120 Volts
TAPS: 2, 5% BNFC



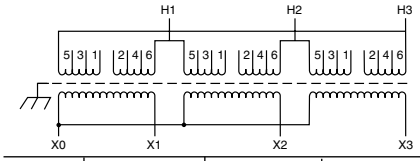
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
600	H1, H2, H3	1	
570	H1, H2, H3	2	
540	H1, H2, H3	3	
Secondary Volts			
208			X1, X2, X3
120 1 phase			X1 to X0 X2 to X0 X3 to X0

29
PRIMARY: 600 Volts Delta
SECONDARY: 208Y/120 Volts
TAPS: 2, 2½% ANFC, 4, 2½% BNFC



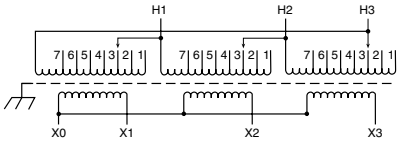
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
630	H1, H2, H3	1	
615	H1, H2, H3	2	
600	H1, H2, H3	3	
585	H1, H2, H3	4	
570	H1, H2, H3	5	
555	H1, H2, H3	6	
540	H1, H2, H3	7	
Secondary Volts			
208			X1, X2, X3
120 1 phase			X1 to X0 X2 to X0 X3 to X0

30
PRIMARY: 600 Volts Delta
SECONDARY: 208Y/120 Volts
TAPS: 2, 2½% ANFC, 4, 2½% BNFC



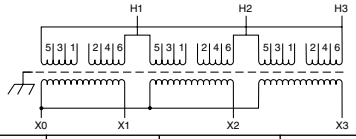
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
630	H1, H2, H3	1 to 2	
615	H1, H2, H3	2 to 3	
600	H1, H2, H3	1 to 4	
585	H1, H2, H3	3 to 4	
570	H1, H2, H3	1 to 6	
555	H1, H2, H3	3 to 6	
540	H1, H2, H3	5 to 6	
Secondary Volts			
208			X1, X2, X3
120 1 phase			X1 to X0 X2 to X0 X3 to X0

31
PRIMARY: 480 Volts Delta
SECONDARY: 480Y/277 Volts
TAPS: 2, 2½% ANFC, 4, 2½% BNFC



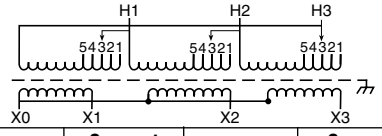
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
504	H1, H2, H3	1	
492	H1, H2, H3	2	
480	H1, H2, H3	3	
468	H1, H2, H3	4	
456	H1, H2, H3	5	
444	H1, H2, H3	6	
432	H1, H2, H3	7	
Secondary Volts			
480			X1, X2, X3
277 1 phase			X1 to X0 X2 to X0 X3 to X0

32
PRIMARY: 480 Volts Delta
SECONDARY: 480Y/277 Volts
TAPS: 2, 2½% ANFC, 4, 2½% BNFC



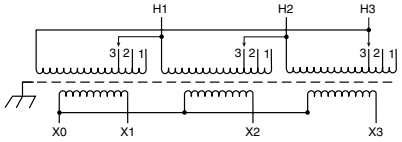
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
504	H1, H2, H3	1 to 2	
492	H1, H2, H3	2 to 3	
480	H1, H2, H3	1 to 4	
468	H1, H2, H3	3 to 4	
456	H1, H2, H3	1 to 6	
444	H1, H2, H3	3 to 6	
432	H1, H2, H3	5 to 6	
Secondary Volts			
480			X1, X2, X3
277 1 phase			X1 to X0 X2 to X0 X3 to X0

33
PRIMARY: 380 Volts Delta
SECONDARY: 208/120 Volts
TAPS: 2-2½% ANFC and BNFC



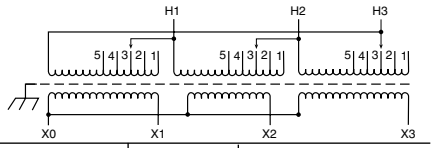
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
399	H1, H2, H3	1	
390	H1, H2, H3	2	
380	H1, H2, H3	3	
371	H1, H2, H3	4	
361	H1, H2, H3	5	
Secondary Volts			
208			X1, X2, X3
120 1 phase			X1 to X0 X2 to X0 X3 to X0

34
PRIMARY: 460 Volts Delta
SECONDARY: 460Y/266 Volts
TAPS: 1-5% ANFC and BNFC



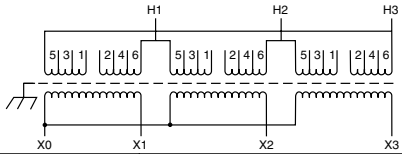
Primary Volts	%	Connect Leads to Tap No.
483	105	1
460	100	2
437	95	3
Secondary Volts		
460		X1, X2, X3
266 1 phase		X1 & X0 X2 & X0 X3 & X0

35
PRIMARY: 460 Volts Delta
SECONDARY: 460Y/266 Volts
TAPS: 2-2½% ANFC and BNFC



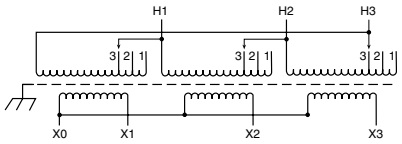
Primary Volts	%	Connect Leads to Tap No.
483	105	1
472	102.5	2
460	100	3
449	97.5	4
437	95	5
Secondary Volts		
460		X1, X2, X3
266 1 phase		X1 & X0 X2 & X0 X3 & X0

36
PRIMARY: 460 Volts Delta
SECONDARY: 460Y/266 Volts
TAPS: 2-2½% ANFC and BNFC



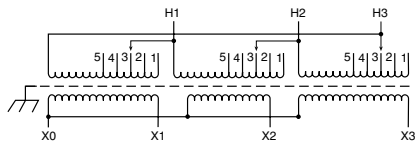
Primary Volts	%	Connect Leads to Tap No.
483	105	1 to 2
472	102.5	2 to 3
460	100	1 to 4
449	97.5	3 to 4
437	95	4 to 5
Secondary Volts		
460		X1, X2, X3
266 1 phase		X1 & X0 X2 & X0 X3 & X0

37
PRIMARY: 460 Volts Delta
SECONDARY: 230Y/133 Volts
TAPS: 1-5% ANFC and BNFC



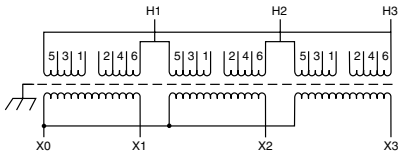
Primary Volts	%	Connect Leads to Tap No.
483	105	1
460	100	2
437	95	3
Secondary Volts		
230		X1, X2, X3
133 1 phase		X1 & X0 X2 & X0 X3 & X0

38
PRIMARY: 460 Volts Delta
SECONDARY: 230Y/133 Volts
TAPS: 2-2½% ANFC and BNFC



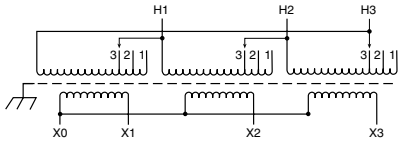
Primary Volts	%	Connect Leads to Tap No.
483	105	1
472	102.5	2
460	100	3
449	97.5	4
437	95	5
Secondary Volts		
230		X1, X2, X3
133 1 phase		X1 & X0 X2 & X0 X3 & X0

39
PRIMARY: 460 Volts Delta
SECONDARY: 230Y/133 Volts
TAPS: 2-2½% ANFC and BNFC



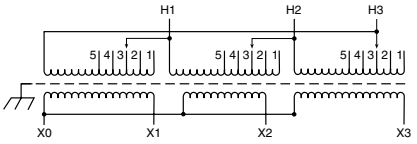
Primary Volts	%	Connect Leads to Tap No.
483	105	1 to 2
472	102.5	2 to 3
460	100	1 to 4
449	97.5	3 to 4
437	95	4 to 5
Secondary Volts		
230		X1, X2, X3
133 1 phase		X1 & X0 X2 & X0 X3 & X0

40
PRIMARY: 575 Volts Delta
SECONDARY: 230Y/133 Volts
TAPS: 1-5% ANFC and BNFC



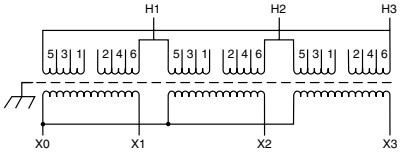
Primary Volts	%	Connect Leads to Tap No.
604	105	1
575	100	2
546	95	3
Secondary Volts		
230		X1, X2, X3
133 1 phase		X1 & X0 X2 & X0 X3 & X0

41
PRIMARY: 575 Volts Delta
SECONDARY: 230Y/133 Volts
TAPS: 2-2½% ANFC and BNFC



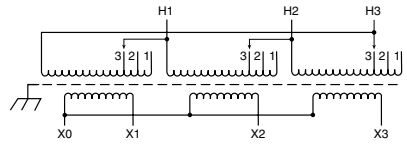
Primary Volts	%	Connect Leads to Tap No.
604	105	1
589	102.5	2
575	100	3
561	97.5	4
546	95	5
Secondary Volts		
230		X1, X2, X3
133 1 phase		X1 & X0 X2 & X0 X3 & X0

42
PRIMARY: 575 Volts Delta
SECONDARY: 230Y/133 Volts
TAPS: 2-2½% ANFC and BNFC



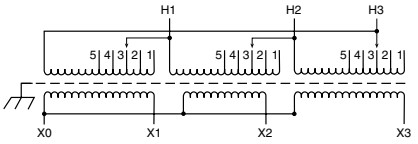
Primary Volts	%	Connect Leads to Tap No.
604	105	1 to 2
589	102.5	2 to 3
575	100	1 to 4
561	97.5	3 to 4
546	95	4 to 5
Secondary Volts		
230		X1, X2, X3
133 1 phase		X1 & X0 X2 & X0 X3 & X0

43
PRIMARY: 575 Volts Delta
SECONDARY: 460Y/266 Volts
TAPS: 1-5% ANFC and BNFC



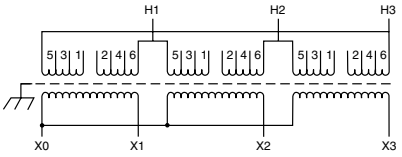
Primary Volts	%	Connect Leads to Tap No.
604	105	1
575	100	2
546	95	3
Secondary Volts		
460		X1, X2, X3
266 1 phase		X1 & X0 X2 & X0 X3 & X0

44
PRIMARY: 575 Volts Delta
SECONDARY: 460Y/266 Volts
TAPS: 2-2½% ANFC and BNFC



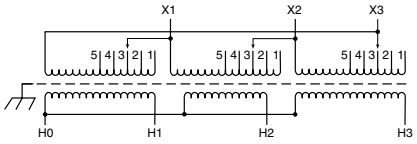
Primary Volts	%	Connect Leads to Tap No.
604	105	1
589	102.5	2
575	100	3
561	97.5	4
546	95	5
Secondary Volts		
460		X1, X2, X3
266 1 phase		X1 & X0 X2 & X0 X3 & X0

45
PRIMARY: 575 Volts Delta
SECONDARY: 460Y/266 Volts
TAPS: 2-2½% ANFC and BNFC



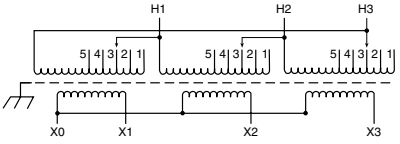
Primary Volts	%	Connect Leads to Tap No.
604	105	1 to 2
589	102.5	2 to 3
575	100	1 to 4
561	97.5	3 to 4
546	95	4 to 5
Secondary Volts		
460		X1, X2, X3
266 1 phase		X1 & X0 X2 & X0 X3 & X0

46
PRIMARY: 208 Volts Delta
SECONDARY: 480Y/277 Volts
TAPS: 2, 2½% ANFC, 2, 2½% BNFC



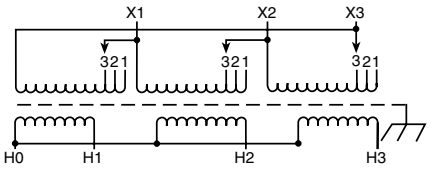
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
218	X1, X2, X3	1	
213	X1, X2, X3	2	
208	X1, X2, X3	3	
203	X1, X2, X3	4	
198	X1, X2, X3	5	
Secondary Volts			
480			H1, H2, H3
277 1 phase			H1 to H0 H2 to H0 H3 to H0

47
PRIMARY: 416 Volts Delta
SECONDARY: 208Y/120 Volts
TAPS: 2, 2½% ANFC, 2, 2½% BNFC



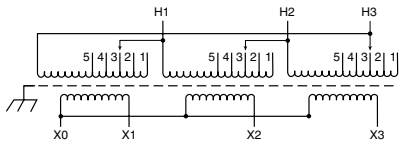
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
437	H1, H2, H3	1	
426	H1, H2, H3	2	
416	H1, H2, H3	3	
406	H1, H2, H3	4	
395	H1, H2, H3	5	
Secondary Volts			
208			X1, X2, X3
120 1 phase			X1 to X0 X2 to X0 X3 to X0

48
PRIMARY: 208 Volts Delta
SECONDARY: 480Y/277 Volts
TAPS: 2, 5% BNFC



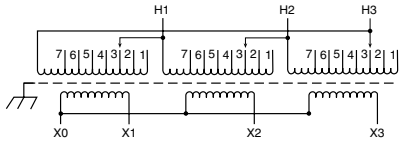
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
208	X1, X2, X3	1	
198	X1, X2, X3	2	
187	X1, X2, X3	3	
Secondary Volts			
480			H1, H2, H3
277 1 phase			H1 to H0 H2 to H0 H3 to H0

49
PRIMARY: 600 Volts Delta
SECONDARY: 208Y/120 Volts
TAPS: 2, 2½% ANFC, 2, 2½% BNFC



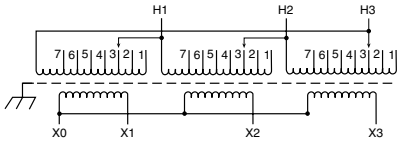
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
630	H1, H2, H3	1	
615	H1, H2, H3	2	
600	H1, H2, H3	3	
585	H1, H2, H3	4	
570	H1, H2, H3	5	
Secondary Volts			
208			X1, X2, X3
120 1 phase			X1 to X0 X2 to X0 X3 to X0

50
PRIMARY: 600 Volts Delta
SECONDARY: 380Y/220 Volts
TAPS: 2, 2½% ANFC, 4, 2½% BNFC



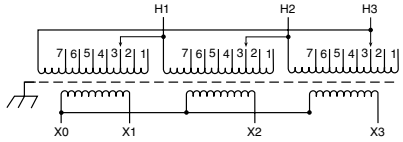
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
630	H1, H2, H3	1	
615	H1, H2, H3	2	
600	H1, H2, H3	3	
585	H1, H2, H3	4	
570	H1, H2, H3	5	
555	H1, H2, H3	6	
540	H1, H2, H3	7	
Secondary Volts			
380			X1, X2, X3
220 1 phase			X1 to X0 X2 to X0 X3 to X0

51
PRIMARY: 600 Volts Delta
SECONDARY: 480Y/277 Volts
TAPS: 2, 2½% ANFC, 4, 2½% BNFC



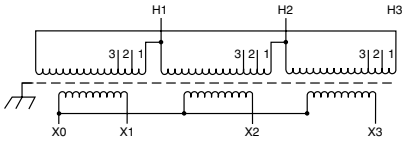
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
630	H1, H2, H3	1	
615	H1, H2, H3	2	
600	H1, H2, H3	3	
585	H1, H2, H3	4	
570	H1, H2, H3	5	
555	H1, H2, H3	6	
540	H1, H2, H3	7	
Secondary Volts			
480			X1, X2, X3
277 1 phase			X1 to X0 X2 to X0 X3 to X0

52
PRIMARY: 600 Volts Delta
SECONDARY: 600Y/347 Volts
TAPS: 2, 2½% ANFC, 4, 2½% BNFC



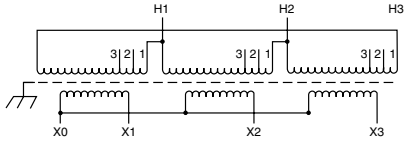
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
630	H1, H2, H3	1	
615	H1, H2, H3	2	
600	H1, H2, H3	3	
585	H1, H2, H3	4	
570	H1, H2, H3	5	
555	H1, H2, H3	6	
540	H1, H2, H3	7	
Secondary Volts			
600			X1, X2, X3
347 1 phase			X1 to X0 X2 to X0 X3 to X0

53
PRIMARY: 600 Volts Delta
SECONDARY: 380Y/220 Volts
TAPS: 2, 5% BNFC



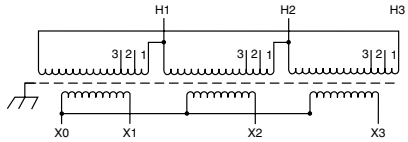
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
600	H1, H2, H3	1	
570	H1, H2, H3	2	
540	H1, H2, H3	3	
Secondary Volts			
380			X1, X2, X3
220 1 phase			X1 to X0 X2 to X0 X3 to X0

54
PRIMARY: 600 Volts Delta
SECONDARY: 600Y/347 Volts
TAPS: 2, 5% BNFC



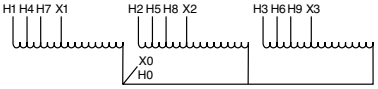
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
600	H1, H2, H3	1	
570	H1, H2, H3	2	
540	H1, H2, H3	3	
Secondary Volts			
600			X1, X2, X3
347 1 phase			X1 to X0 X2 to X0 X3 to X0

55
PRIMARY: 600 Volts Delta
SECONDARY: 480Y/277 Volts
TAPS: 2, 5% BNFC



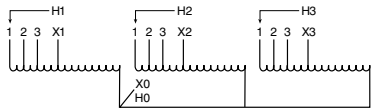
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
600	H1, H2, H3	1	
570	H1, H2, H3	2	
540	H1, H2, H3	3	
Secondary Volts			
480			X1, X2, X3
277 1 phase			X1 to X0 X2 to X0 X3 to X0

56
PRIMARY: 600 Volts
SECONDARY: 480 Volts
TAPS: 2, 5% BNFC



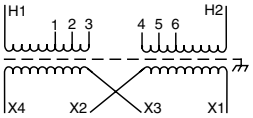
Primary Volts	Alt Rating	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
600	480	H1, H2, H3		
570	456	H4, H5, H6		
540	432	H7, H8, H9		
Secondary Volts				
480	380			X1, X2, X3
277 1 phase	220 1 phase			X1 to X0 X2 to X0 X3 to X0

57 PRIMARY: 600 Volts SECONDARY: 480 Volts TAPS: 2, 5% BNFC



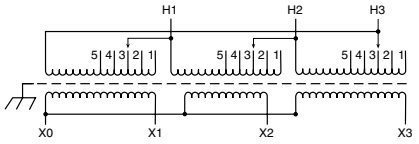
Primary Volts	Alt Rating	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
600	480	H1, H2, H3	1	
570	456	H1, H2, H3	2	
540	432	H1, H2, H3	3	
Secondary Volts				
480	380			X1, X2, X3
277 1 phase	220 1 phase			X1 to X0 X2 to X0 X3 to X0

58 PRIMARY: 208 Volts SECONDARY: 120/240 Volts TAPS: 2, 5% BNFC



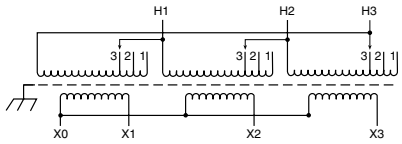
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
208	H1 & H2	3 to 4	
198	H1 & H2	2 to 5	
187	H1 & H2	1 to 6	
Secondary Volts			
240		X2 to X3	X1-X4
120/240		X2 to X3	X1-X2-X4
120		X1 to X3 X2 to X4	X1-X4

59 PRIMARY: 230 Volts Delta SECONDARY: 230Y/133 Volts TAPS: 2-2½% ANFC and 2-2½% BNFC



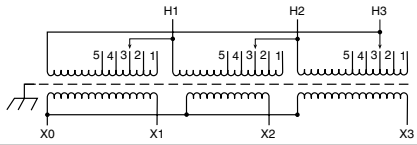
Primary Volts	%	Connect Leads to Tap No.
242	105	1
236	102.5	2
230	100	3
224	97.5	4
219	95	5
Secondary Volts		
230		X1, X2, X3
133 1 phase		X1 & X0 X2 & X0 X3 & X0

60 PRIMARY: 208 Volts Delta SECONDARY: 208Y/120 Volts TAPS: 2-5% BNFC



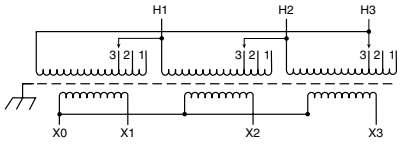
Primary Volts	%	Connect Leads to Tap No.
208	100	1
198	95	2
187	90	3
Secondary Volts		
208		X1, X2, X3
120 1 phase		X1 & X0 X2 & X0 X3 & X0

61 PRIMARY: 208 Volts Delta SECONDARY: 208Y/120 Volts TAPS: 2-2½% ANFC and 2-2½% BNFC



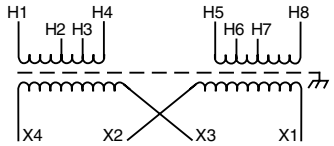
Primary Volts	%	Connect Leads to Tap No.
218	105	1
213	102.5	2
208	100	3
203	97.5	4
198	95	5
Secondary Volts		
208		X1, X2, X3
120 1 phase		X1 & X0 X2 & X0 X3 & X0

62 PRIMARY: 230 Volts Delta SECONDARY: 230Y/133 Volts TAPS: 1-5% ANFC and 1-5% BNFC



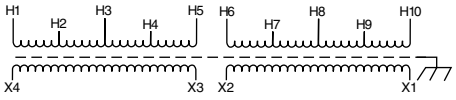
Primary Volts	%	Connect Leads to Tap No.
241	105	1
230	100	2
218	95	3
Secondary Volts		
230		X1, X2, X3
133 1 phase		X1 & X0 X2 & X0 X3 & X0

63 PRIMARY: 120/208/240/277 Volts SECONDARY: 120/240 Volts



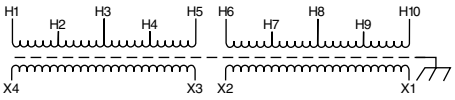
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
120	H1 & H8	H1 to H6 H3 to H8	
208	H1 & H8	H2 to H7	
240	H1 & H8	H3 to H6	
277	H1 & H8	H4 to H5	
Secondary Volts			
240		X2 to X3	X1 & X4
120/240		X2 to X3	X1, X3, X4
120		X1 to X3 X2 to X4	X1 & X4

64 PRIMARY: 190/208/220/240 x 380/416/440/480 Volts SECONDARY: 120/240 Volts



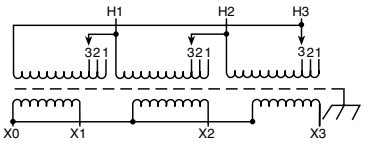
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
190	H1& H7	H1 to H6 H2 to H7	
208	H1 & H8	H1 to H6 H3 to H8	
220	H1 & H9	H1 to H6 H4 to H9	
240	H1& H10	H1 to H6 H5 to H10	
380	H1 & H7	H2 to H6	
416	H1 & H8	H3 to H6	
440	H1 & H9	H4 to H6	
480	H1 & H10	H5 to H6	
Secondary Volts			
240		X2 to X3	X1 - X4
120/240		X2 to X3	X1- X2 - X4
120		X1 to X3 X2 to X4	X1 - X4

65 PRIMARY: 190/200/208/220 x 380/400/416/440 Volts SECONDARY: 110/220 Volts



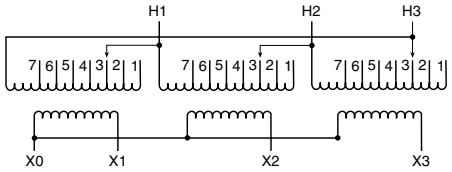
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
190	H1 & H7	H1 to H6 H2 to H7	
200	H1 & H8	H1 to H6 H3 to H8	
208	H1 & H9	H1 to H6 H4 to H9	
220	H1 & H10	H1 to H6 H5 to H10	
380	H1 & H7	H2 to H6	
400	H1 & H8	H3 to H6	
415	H1 & H9	H4 to H6	
440	H1 & H10	H5 to H6	
Secondary Volts			
220		X2 to X3	X1-X4
110/220		X2 to X3	X1-X2-X4
110		X1 to X3 X2 to X4	X1-X4

66
PRIMARY: 416 Volts Delta
SECONDARY: 208Y/120 Volts
TAPS: 2, 5% BNFC



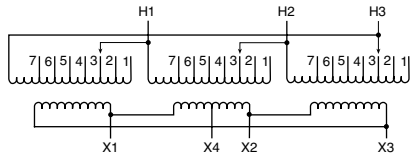
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
437	H1, H2, H3	1	
416	H1, H2, H3	2	
395	H1, H2, H3	3	
Secondary Volts			
208			X1, X2, X3
120 1 phase			X1 to X0 X2 to X0 X3 to X0

67
PRIMARY: 480 Volts Delta
SECONDARY: 208Y/120 Volts
TAPS: 2-2½% ANFC, 4, 2½% BNFC



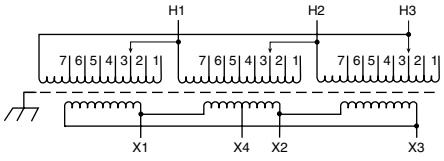
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
504	H1, H2, H3	1	
492	H1, H2, H3	2	
480	H1, H2, H3	3	
468	H1, H2, H3	4	
456	H1, H2, H3	5	
444	H1, H2, H3	6	
432	H1, H2, H3	7	
Secondary Volts			
208			X1, X2, X3
120 1 phase			X1 to X0 X2 to X0 X3 to X0

68
PRIMARY: 480 Volts Delta
SECONDARY: 240 Volts Delta/120 Volts
TAPS: 2, 2½% ANFC, 4, 2½% BNFC



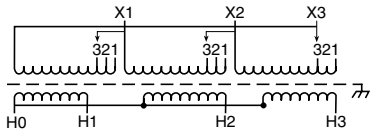
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
504	H1, H2, H3	1	
492	H1, H2, H3	2	
480	H1, H2, H3	3	
468	H1, H2, H3	4	
456	H1, H2, H3	5	
444	H1, H2, H3	6	
432	H1, H2, H3	7	
Secondary Volts			
240			X1, X2, X3
120			X1, X4, or X2, X4

69
PRIMARY: 600 Volts Delta
SECONDARY: 240 Delta/120 Volts
TAPS: 2, 2½% ANFC, 4, 2½% BNFC



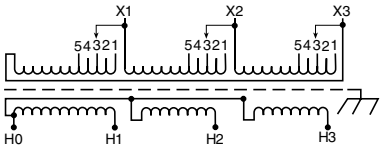
Primary Volts	%	Connect Leads to Tap No.
630	105	1
615	102.5	2
600	100	3
585	97.5	4
570	95	5
555	92.5	6
540	90	7
Secondary Volts		
240		X1, X2, X3
120		X1, X4, or X2, X4

70
PRIMARY: 240 Volts Delta
SECONDARY: 480Y/277 Volts
TAPS: 2, 5% BNFC



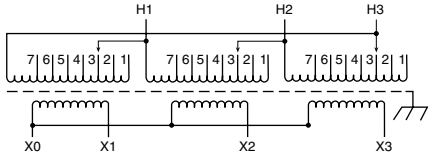
Primary Volts	%	Connect Leads to Tap No.
240	100	1
228	95	2
216	90	3
Secondary Volts		
480		H1, H2, H3
277 1 phase		H1 to H0 H2 to H0 H3 to H0

71
PRIMARY: 240 Volts Delta
SECONDARY: 480Y/277 Volts
TAPS: 2, 2½% ANFC & BNFC



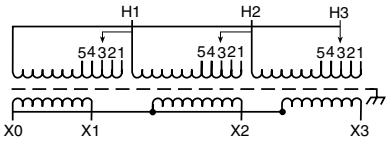
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
252	X1, X2, X3	1	
246	X1, X2, X3	2	
240	X1, X2, X3	3	
234	X1, X2, X3	4	
228	X1, X2, X3	5	
Secondary Volts			
480			H1, H2, H3
277 1 phase			H1 to H0 H2 to H0 H3 to H0

72
PRIMARY: 380 Volts Delta
SECONDARY: 208Y/120 Volts
TAPS: 2, 2½% ANFC, 4, 2½% BNFC



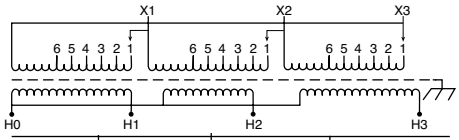
Primary Volts	%	Connect Leads to Tap No.
399	105	1
390	102.5	2
380	100	3
371	97.5	4
361	95	5
352	92.5	6
342	90	7
Secondary Volts		
208		X1, X2, X3
120 1 phase		X1 to X0 X2 to X0 X3 to X0

73
PRIMARY: 440 Volts Delta
SECONDARY: 220Y/127 Volts
TAPS: 2, 5% ANFC & BNFC



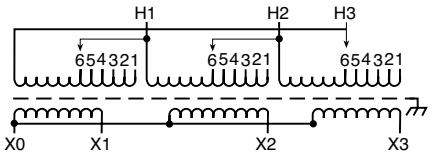
Primary Volts	%	Connect Leads to Tap No.
484	110	1
462	105	2
440	100	3
418	95	4
396	90	5
Secondary Volts		
220		X1, X2, X3
127 1 phase		X1 to X0 X2 to X0 X3 to X0

74
PRIMARY: 190/200/210/220/230/240 Volts Delta
SECONDARY: 400Y/231 Volts



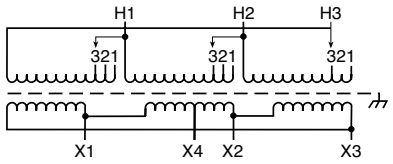
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
240	X1, X2, X3	1	
230	X1, X2, X3	2	
220	X1, X2, X3	3	
210	X1, X2, X3	4	
200	X1, X2, X3	5	
190	X1, X2, X3	6	
Secondary Volts			
400			H1, H2, H3
231 1 phase			H1 to H0 H2 to H0 H3 to H0

75
PRIMARY: 190/200/210/220/230/240 Volts Delta
SECONDARY: 400Y/231 Volts



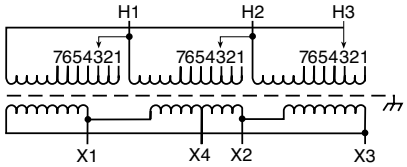
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
240	H1, H2, H3	1	
230	H1, H2, H3	2	
220	H1, H2, H3	3	
210	H1, H2, H3	4	
200	H1, H2, H3	5	
190	H1, H2, H3	6	
Secondary Volts			
400			X1, X2, X3
231 1 phase			X1 to X0 X2 to X0 X3 to X0

76
PRIMARY: 400 Volts Delta
SECONDARY: 240 Volts Delta/120 Volts
TAPS: 2, 5% BNFC



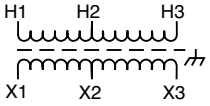
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
400	H1, H2, H3	1	
380	H1, H2, H3	2	
360	H1, H2, H3	3	
Secondary Volts			
240			X1, X2, X3
120			X1 to X4 or X2 to X4

77
PRIMARY: 400 Volts Delta
SECONDARY: 240 Delta/120 Volts
TAPS: 2, 2 ½% ANFC, 4, 2 ½% BNFC



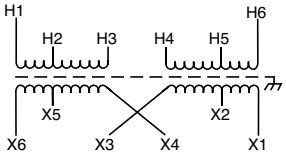
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
420	H1, H2, H3	1	
410	H1, H2, H3	2	
400	H1, H2, H3	3	
390	H1, H2, H3	4	
380	H1, H2, H3	5	
370	H1, H2, H3	6	
360	H1, H2, H3	7	
Secondary Volts			
240			X1, X2, X3
120			X1 to X4 or X2 to X4

78
PRIMARY: 277/480 Volts
SECONDARY: 208/277 Volts
TAPS: NONE



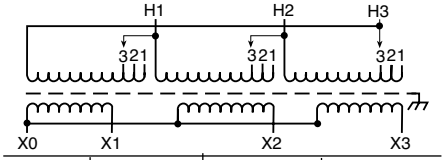
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
277	H1 & H2		
480	H1 & H3		
Secondary Volts			
208			X1 to X2
277			X1 to X3

79
PRIMARY: 277/480 Volts
SECONDARY: 208/277 Volts
TAPS: NONE



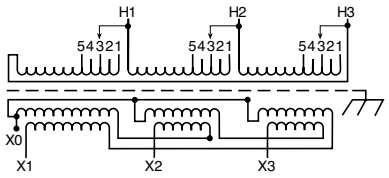
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
277	H1 - H5	H2 to H4	
480	H1 - H6	H3 to H4	
Secondary Volts			
208		X2 to X4	X1- X5
277		X3 to X4	X1- X6

80
PRIMARY: 480 Volts Delta
SECONDARY: 208Y/120 Volts
TAPS: 1-5% ANFC & 1-5% BNFC



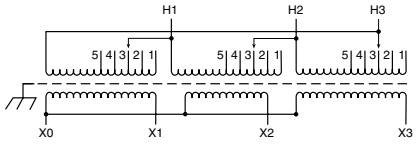
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
504	H1, H2, H3	1	
480	H1, H2, H3	2	
456	H1, H2, H3	3	
Secondary Volts			
208			X1, X2, X3
120 1 phase			X1 to X0 X2 to X0 X3 to X0

81
PRIMARY: 480 Volts Delta
SECONDARY: 208Y/120 Volts
TAPS: 2, 2 ½% ANFC, 2, 2 ½% BNFC



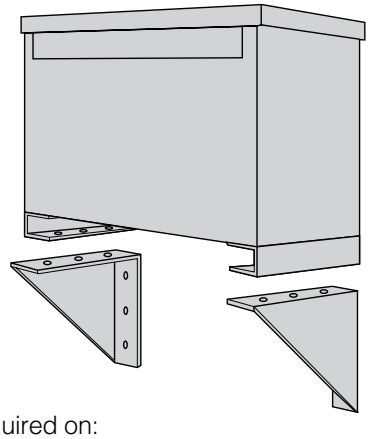
Primary Volts	Connect Primary Lines To	Inter-Connect	Connect Secondary Lines To
504	H1, H2, H3	1	
492	H1, H2, H3	2	
480	H1, H2, H3	3	
468	H1, H2, H3	4	
456	H1, H2, H3	5	
Secondary Volts			
208			X1, X2, X3
120 1 phase			X1 to X0 X2 to X0 X3 to X0

82
PRIMARY: 380 Volts Delta
SECONDARY: 208Y/120 Volts
TAPS: 2-2 ½% ANFC and 2-2 ½% BNFC



Primary Volts	%	Connect Leads to Tap No.
399	105	1
390	102.5	2
380	100	3
371	97.5	4
361	95	5
Secondary Volts		
208		X1, X2, X3
120 1 phase		X1 to X0 X2 to X0 X3 to X0

Wall Mounting Brackets



Required on:
Ventilated Units:
1Ø, 37.5 and 50 kVA
3Ø, 30, 45 and 75 kVA
Catalog Number: PL-79912

Encapsulated Units:
3Ø dit., 11 kVA — 20 kVA
3Ø std. distribution — 15 kVA
Catalog Number: PL-79911

Wall mounting brackets are not required on:
1Ø units — 25 kVA and below
3Ø units — 9 kVA and below

Standard Taps

The catalog number suffix provides tap information as outlined in chart below:

If the catalog number has no suffix, there are no taps available.

EXAMPLE: T-2-53019-3S
The suffix 3S indicates the unit has two 2.5% (+) ANFC taps and four 2.5% (–) BNFC taps.

Suffix	Tap Arrangement
– 1S	Two 5% (–) BNFC Taps
– 2S	One 5% (+) ANFC Tap and One 5% (–) BNFC Tap
– 3S	Two 2-1/2% (+) ANFC Taps and Four 2-1/2%(–) BNFC Taps
– 4S	Two 2-1/2% (+) ANFC Taps and Two 2-1/2% (–) BNFC Taps
– 5S	Two 5% (+) ANFC Taps and Two 5% (–) BNFC Taps

Thermal Switch Kits

Acme Thermal Switch Kits are designed for use with single and three phase drive isolation and distribution transformers. Thermal switch kits are available for one or three sensor systems.

Thermal sensors can be field or factory installed in the transformer winding ducts to detect abnormal temperatures. The thermal sensors are a normally closed contact that opens at 200°C ± 10°C and has a current capacity of 5 amps @ 120V or 2.5 amps @ 240V. This contact can activate any number of different types of alarms or mechanisms that could warn of a potential failure.

Catalog Number: PL-79900

kVA	Mounting Position	Illustration
27.0 – 220.0	Bottom of the case	Figure 1
275.0 – 750	Top Flange of the Core Bracket	Figure 2

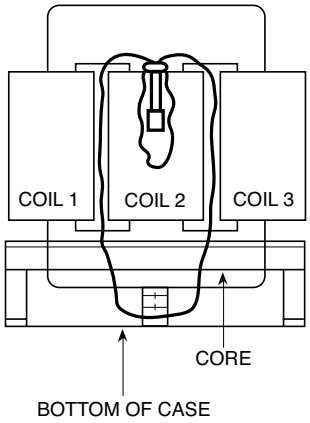


Figure 1

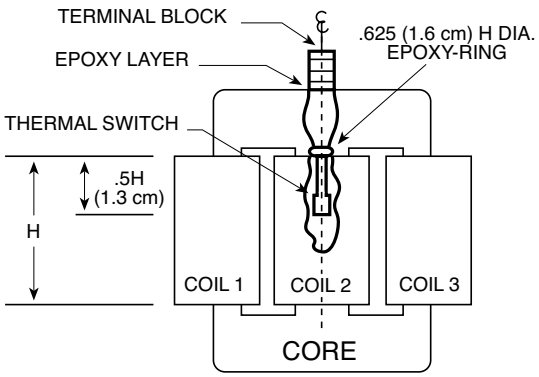


Figure 2

Lug Kits

Acme's mechanical transformer lug kits contain all of the hardware necessary to provide satisfactory transformer terminations. Lug kits are available in sizes from 27 kVA to 660 kVA.

Acme lugs are of the dual rated single pole solderless type, made from high strength aluminum alloy. To provide the best in low contact resistance, all lugs in these kits are plated.

Catalog No.	Transformer kVA Size	Kit Contains			
		Wire Range Al or Cu	Qty	Nuts & Bolts	Qty
Lug 1	37 1/2 1-phase 27 - 45 3-phase	2 -14 250 mcm - 6	8 4	1/4 - 20 X 3/4	8
Lug 2	50 - 75 1-phase 51 - 118 3-phase	250 mcm - 6	12	1/4 - 20 x 3/4 1/4 - 20 x 1 3/4	8 8
Lug 3	100 -167 1-phase 145 - 300 3-phase	250 mcm - 6 600 mcm - 2	3 22	1/4 - 20 x 3/4 3/8 - 16 x 2	3 16
Lug 4	440 - 660 3-phase	600 mcm - 2	29	3/8 - 16 x 2	8

Weather Shields

Catalog No.	Approx. Ship Weight Lbs. (Kg.)
WSA1	6 (2.7)
WSA2	7 (3.2)
WSA3	8 (3.6)
WSA4	8 (3.6)
WSA5	10 (4.5)
WSA6	10 (4.5)
WSA8	7 (3.2)
WSB3	30 (13.6)
WSB4	32 (14.5)

Spare Parts

TOP COVER

CATALOG NO.	APPROX. SHIP WEIGHT Lbs. (Kg.)
SA1701319	14 (6.4)
SA2701319	16 (7.3)
SA3701319	20 (9.1)
SA4701319	34 (15.4)
SA6701319	17 (7.7)

FRONT/REAR PANEL

CATALOG NO.	APPROX. SHIP WEIGHT Lbs. (Kg.)
SA1701321	13 (5.9)
SA2701321	15 (6.8)
SA3701321	21 (9.5)
SA4701321	35 (15.9)
SA7701321	16 (7.3)

SIDE PANEL

CATALOG NO.	APPROX. SHIP WEIGHT Lbs. (Kg.)
SA1701320	11 (5.0)
SA2701320	13 (5.9)
SA3701320	19 (8.6)
SA4701320	34 (15.4)

Specification Guide for Dry Type Distribution Transformers

1.0 Dry Type Transformers:

1.0.0 The following information should be utilized only by trained technical personnel. If you need assistance, please contact Acme's Technical Services Department at 800-334-5214.

1.0.1 Provide dry type, enclosed and ventilated transformers as indicated herein. Transformers shall be Acme or approved equal.

1.0.2 Transformers shall be designed, constructed and rated in accordance with UL, CSA, NEMA, ANSI, IEEE, and OSHA standards.

1.0.3 Transformers rated 27 kVA and larger, single and three phase shall be the ventilated type, incorporating a 220 degree C insulation system and designed not to exceed 150 degree C temperature rise above a 40 degree C ambient under full load conditions. Taps are to be provided on the primary side of the transformer as follows:

(a) 2 - 2.5% above normal full capacity.
4 - 2.5% below normal full capacity.
-or-

(b) 2 - 2.5% above normal full capacity.
2 - 2.5% below normal full capacity.

Alternate 1: 115 degree C rise transformers shall incorporate a 220 degree C insulation system and be designed not to exceed 115 degree C temperature rise above a 40 degree C ambient under full load conditions. In addition, the transformer shall have the ability to carry a continuous 15% overload without exceeding a 150 degree C rise above ambient.

Alternate 2: 80 degree C rise Transformers shall incorporate a 220 degree C insulation system and be designed not to exceed 80 degree C temperature rise above a 40 degree C ambient under full load conditions. In addition, the transformer shall have the ability to carry a continuous 30% overload without exceeding a 150 degree C rise above ambient.

1.0.4 Transformer enclosure finish must be ASA 61 gray powder polyurethane paint. Transformer enclosure temperature shall not exceed 50 degrees C plus the ambient under any condition of loading at any specified temperature rise at or below 150 degrees C.

1.0.5 Transformer enclosure shall be UL/NEMA Type 2 and UL 3R Listed with the addition of a weather shield and shall be so marked on the transformer.

1.0.6 Transformer shall incorporate an electrostatic shield for the attenuation of voltage spikes, line noise, and transients.

1.0.7 Single phase transformers and three phase transformers terminate in copper or aluminum bus bar.

1.0.8 Transformer coils designed and manufactured for increased insulation life, cooler operation, and lower losses.

1.0.9 Transformers must operate at audible sound levels below NEMA Standard ST-20. Sound levels will not exceed the following:

30 - 50 kVA	45 db
51 - 150 kVA	50 db
151 - 300 kVA	55 db
301 - 500 kVA	60 db
501 - 750 kVA	65 db

Transformers must incorporate vibration isolation pads in their construction located between the transformer core and coil assembly and the transformer case. External vibration isolation pads will not be used as they tend to increase audible noise. Transformers shall be floor mounted on a concrete pad. All connections to the transformer will be made by means of flexible metallic conduit.

1.0.10 Transformer enclosure shall be grounded per the National Electric Code.

1.0.11 Transformers shall be dry-type 600 volt class, kVA rating as indicated. Contractor to provide all necessary lugs for all transformers.

1.0.12 Complete shop drawings must be submitted for approval on all dry type transformers.

1.0.13 Typical performance data must be submitted for approval on all transformers. Factory tests must be made in accordance with the latest revisions of ANSI Test Code C57.12.91 for Dry Type Transformers. Performance data provided must contain but not be limited to:

(a) No load losses.
(b) Full load losses.
(c) Polarity and phase rotation.
(d) Impedance at reference temperature.
(e) Efficiencies at 25, 50, 75, and 100% load.
(f) Regulation at 100% and 80% power factor.
(g) Audible sound level.
(h) Dimensions and weight.
(i) Applied potential test.
(j) Induced potential test.
(k) Excitation current.
(l) IR, IX, and IZ percentages.
(m) Reference and ambient temperature.

1.0.14 Warranty: Transformers must be warranted against defects in materials, workmanship, and performance for ten years from date of manufacture.

Specification Guide for Single & Three Phase Encapsulated Transformers

1.0 Dry Type Transformers:

1.0.0 The following information should be utilized only by trained technical personnel. If you need assistance, please contact Acme's Technical Services Department at 800-334-5214.

1.0.1 Provide dry type, enclosed, epoxy encapsulated transformers as indicated and specified herein. Transformers must be Acme or approved equal.

1.0.2 Transformers must be designed, constructed and rated in accordance with UL, CSA, NEMA, ANSI, IEEE, and OSHA standards.

1.0.3 Transformers 3.0 - 75 kVA shall be compound filled, incorporating a 180 degree C insulation system and designed not to exceed a 115 degree C temperature rise above a 40 degree C ambient under full load conditions. Taps are to be provided on the primary side of the transformer. The catalog number suffix will provide the tap information outlined below:

SUFFIX	TAP ARRANGEMENT
- 1S	2-5% BNFC
- 2S	1-5% ANFC & 1-5% BNFC
- 3S	2-2.5% ANFC & 4-2.5% BNFC
- 4S	2-2.5% ANFC & 2-2.5% BNFC
- 5S	2-5% ANFC & 2-5% BNFC

1.0.4 Transformer enclosure finish must be ASA 61 gray powder polyurethane paint.

1.0.5 Transformer enclosure temperature shall not exceed 65 degrees C plus the ambient.

1.0.6 Transformer enclosure shall be UL/NEMA Type 3R and so marked on the transformer.

1.0.7 Transformer shall incorporate an electrostatic shield for the attenuation of voltage spikes, line noise and transients.

1.0.8 Transformer coils are typically wound with aluminum or copper for increased insulation life, cooler operation and lower losses.

1.0.9 All primary tap connections and both primary and secondary phase conductors must be either copper wire or copper bus bar.

1.0.10 Transformers must operate at audible sound levels below ANSI/NEMA Standard ST-20. Sound levels will not exceed the following:

Up to 9 kVA	40 db
10 - 50 kVA	45 db
51 - 150 kVA	50 db

1.0.11 Transformer enclosures shall be grounded per the National Electric Code.

1.0.12 Complete shop drawings must be submitted for approval on all Dry Type Transformers.

1.0.13 Typical performance data must be submitted for approval on all transformers. Factory tests must be made in accordance with the latest revisions of ANSI Test Code C57.12.91 for Dry Type Transformers. Performance data must contain but not be limited to:

- **(a)** No load losses.
- **(b)** Full load losses.
- **(c)** Polarity and phase rotation.
- **(d)** Impedance at reference temperature.
- **(e)** Efficiencies at 25, 75, and 100% load.
- **(f)** Regulation at 100% and 80% power factor.
- **(g)** Audible sound level.
- **(h)** Insulation class and rated temperature rise.
- **(i)** Dimensions and weight.
- **(j)** Applied potential test.
- **(k)** Induced potential test.
- **(l)** Excitation current.
- **(m)** IR, IX, and IZ percentages.
- **(n)** Reference and ambient temperature.

1.0.14 Warranty: Transformer must be warranted against defects in materials, workmanship and performance for ten years from date of manufacture.

Specification Guide for Non-Linear Load Isolation® Transformers

1.0 Dry Type Transformers:

1.0.0 The following information should be utilized only by trained technical personnel. If you need assistance, please contact Acme's Technical Services Department at 800-334-5214.

1.0.1 Provide dry type, enclosed, and ventilated transformers as indicated and specified herein. Transformers must be Acme or approved equal. Transformers must be UL listed for non-sinusoidal current loads of a specified K Factor (UL Standard 1561), CSA certified and labeled as such.

1.0.2 For sizes 15 kVA and larger, low voltage dry transformers will be ventilated type, incorporating a 220 degree C insulation system and designed not to exceed 150 degree C temperature rise above a 40 degree C ambient under full load conditions. Taps will be provided on the primary side of the transformer. There will be 2, 2.5% taps above normal full capacity and 4, 2.5% taps below normal full capacity.

Alternate 1: 115 degree C rise Transformers shall incorporate a 220 degree C insulation system and be designed not to exceed 80 degree C temperature rise above a 40 degree C ambient under full load conditions. In addition, the transformer shall have the ability to carry a continuous 15% overload without exceeding a 150 degree C rise above ambient.

Alternate 2: 80 degree C rise Transformers shall incorporate a 220 degree C insulation system and be designed not to exceed 80 degree C temperature rise above a 40 degree C ambient under full load conditions. In addition, the transformer shall have the ability to carry a continuous 30% overload without exceeding a 150 degree C rise above ambient.

1.0.3 Transformers shall incorporate an electrostatic shield for the attenuation of voltage spikes, line noise, and transients.

1.0.4 Transformers must be designed to handle non-linear loads and the adverse effects of harmonics. Transformer coils will be wound with foil to minimize the heating effects caused by harmonic currents.

1.0.5 Transformers must be able to power non-linear loads with a K-Factor as high as 20.

1.0.6 Transformers must operate at audible sound levels below NEMA ST-20. Sound levels will not exceed the following:

30 - 50 kVA	45 db*
51 - 150 kVA	50 db*
151 - 300 kVA	55 db*
301 - 500 kVA	60 db*

* Sound levels are based on transformers with a K-Factor of 4 and a temperature rise of 150 degrees centigrade.

Enclosed, ventilated transformers must incorporate vibration dampening pads in their construction, located between the transformer core and coil assembly and the transformer case. External vibration dampening pads will not be used on enclosed, ventilated designs as they tend to increase audible noise. Transformers 15 kVA and larger shall be floor mounted on a concrete pad. All connections to the transformer will be made by means of flexible metallic conduit.

1.0.7 Transformers shall incorporate a neutral conductor sized at 2 times rated phase current. Transformer cases shall be grounded per the National Electric Code.

1.0.8 Transformers shall be 60 Hz, 480 or 600 volts delta primary, 208Y/120 volt secondary. kVA rating as indicated. Contractor to provide all necessary lugs for all transformers. Transformer enclosures shall be Type 2 and UL-3R listed with the addition of a weather shield.

1.0.9 Complete shop drawings must be submitted for approval on all dry type transformers.

1.0.10 Typical performance data must be submitted for approval on all transformers. Factory tests must be made in accordance with the latest revisions of ANSI Test Code C57.12.91 for Dry Type Transformers. Performance data must contain but not be limited to:

- **(a)** No load losses.
- **(b)** Full load losses.
- **(c)** Polarity and phase rotation.
- **(d)** Impedance at reference temperature.
- **(e)** Efficiencies at 25, 75, 50 and 100% load.
- **(f)** Regulation at 100% and 80% power factor.
- **(g)** Audible sound level.
- **(h)** Insulation class and rated temperature rise.
- **(i)** Dimensions and weight.
- **(j)** Applied potential test.
- **(k)** Induced potential test.
- **(l)** Excitation current.
- **(m)** IR, IX, and IZ percentages.
- **(n)** Reference and ambient temperature.

1.0.11 Warranty: Transformers must be warranted against defects in materials, workmanship and performance for ten years from date of manufacture.

Specification Guide for Drive Isolation Transformers

1.0 Dry Type Transformers:

1.0.0 The following information should be utilized only by trained technical personnel. If you need assistance, please contact Acme's Technical Services Department at 800-334-5214.

1.0.1 Provide dry type, enclosed, epoxy encapsulated transformers as indicated and specified herein. Transformers shall be designed for use with AC/DC Drive applications and labeled as such.

1.0.2 Transformers shall be designed, constructed and rated in accordance with UL, CSA, NEMA, ANSI, IEEE, and OSHA standards.

1.0.3 Transformers 7.5 - 20 kVA shall be three phase, compound filled, incorporating a 180 degree C insulation system and designed not to exceed a 115 degree C temperature rise above a 40 degree C ambient under full load conditions. Taps are provided on the primary side of the transformer as follows:

(a) 1-5% above normal full capacity.

(b) 1-5% below normal full capacity.

Transformers 27 - 750 kVA shall be the ventilated type, incorporating a 220 degree C insulation system and designed not to exceed a 150 degree C temperature rise above a 40 degree C maximum ambient under full load conditions. Taps are to be provided on the primary side of the transformer as follows:

(a) 2 - 2.5% above normal full capacity.

(b) 2 - 2.5% below normal full capacity.

Alternate 1: 115 degree C rise transformers shall incorporate a 220 degree C insulation system and be designed not to exceed a 115 degree C temperature rise above a 40 degree C maximum ambient under full load conditions.
Alternate 2: 80 degree C rise transformers shall incorporate a 220 degree C insulation system and be designed not to exceed 80 degree C temperature rise above a 40 degree C maximum ambient under full load conditions.

1.0.4 Transformer enclosure finish must be ASA 61 gray powder polyurethane paint. Ventilated transformer enclosure temperature shall not exceed 50 degrees C plus the ambient. Compound filled transformer enclosure temperature shall not exceed 65 degrees C, plus the ambient.

1.0.5 Compound filled transformer enclosure shall be UL/NEMA Type 3R and so marked on the transformer (7.5 - 20 kVA). No weather shield is required. Ventilated transformer enclosure shall be UL/NEMA Type 2 and UL-3R listed with the addition of a weather shield and shall be so marked on the transformer (27 - 750 kVA).

1.0.6 Transformers shall incorporate an electrostatic shield for the attenuation of voltage spikes, line noise, and transients.

1.0.7 Transformers up to 220 kVA shall terminate in copper bus bar or copper wire.

1.0.8 Transformer coils must be wound with aluminum strip conductors for increased insulation life, cooler operation and lower losses.

1.0.9 Transformers must operate at audible sound levels below NEMA standard ST-20. Sound levels will not exceed the following:

up to 9kVA	40 db
10 - 50 kVA	45 db
51 - 150 kVA	50 db
151 - 300 kVA	55 db
301 - 500 kVA	60 db
501 - 750 kVA	65 db

Transformers must incorporate vibration isolation pads in their construction located between the transformer core and coil assembly and the transformer case, (27 - 750 kVA).

External vibration pads should not be used as they tend to increase audible noise. Transformers shall be floor mounted on a concrete pad. All connections to the transformer will be made by means of flexible metallic conduit.

1.0.10 Transformer enclosure shall be grounded per the National Electrical Code.

1.0.11 Transformer voltages shall be as follows:

(a) 460 Delta - 460Y/266
(b) 460 Delta - 230Y/133
(c) 575 Delta - 230Y/133
(d) 575 Delta - 460Y/266
(e) 230 Delta-230Y/133
(f) Other

Transformer shall be 60 Hz. kVA rating as indicated. Contractor to provide all necessary lugs for all transformers.

1.0.12 Complete shop drawings must be submitted for approval on all dry type transformers.

1.0.13 Typical performance data must be submitted for approval on all transformers. Factory tests must be made in accordance with the latest revisions of ANSI Test Code C57.12.91 for Dry Type Transformers. Performance data provided must contain, but not be limited to:

(a) No load losses.
(b) Full load losses.
(c) Polarity and phase rotation.
(d) Impedance at reference temperature.
(e) Efficiencies at 25, 75, 50 and 100% load.
(f) Regulation at 100% and 80% power factor.
(g) Audible sound level.
(h) Insulation class and rated temperature rise.
(i) Dimensions and weight.
(j) Applied potential test.
(k) Induced potential test.
(l) Excitation current.
(m) IR, IX, and IZ percentages.
(n) Reference and ambient temperature.

1.0.14 Warranty: Transformers must be warranted against defects in materials, workmanship and performance for ten years from date of manufacture.

Transformer Industry Standards

Underwriters' Laboratories, Inc. is an independent not for profit organization which tests products for safety.

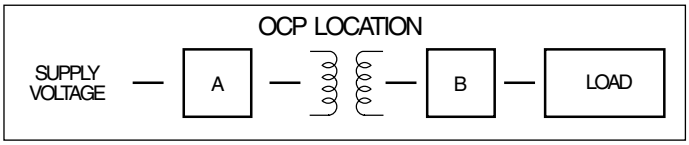
Acme's transformers are designed and manufactured to comply with UL Standard 506, 1561, 1012, or 1062 and carry the applicable UL Listing Label. Because of the continuous product evolutions at Acme, it is best that you contact the factory for the current file and guide numbers associated with the listings.

The Canadian Standards Association is the Canadian counterpart to Underwriters' Laboratories. Acme's transformers are also constructed and rated to comply with CSA Standards C22.2-47 and C22.2-66 and carry the CSA Certification Label.

All of Acme's transformers are manufactured to meet National Electrical Code requirements.

Other Agencies and Standards:
National Electrical Manufacturers Association (NEMA)
ST-20 1992 (R1978)
American National Standards Institute (ANSI)
OSHA
IEEE

Listed Certified



How to overcurrent protect (OCP) 600 volt class transformers and associated wiring

. . . in accordance with the '99 National Electric Code (Articles 450-3(b) and 240-3 (i))

Case	Type of Supply Voltage	Phase	Number of Wires on Secondary	Protection Required	OCP Location	Primary		Secondary	
						Current (AMPS)	OCP (% of rating)	Current (AMPS)	OCP (% of rating)
1	Main	1Ø	2	Primary Only	A	≥9 <9, ≥2 <2	125 ① 167 max. 300 max.	Not Required	
2	Main	1Ø 3Ø	More than 2 Not Applicable	Primary & Secondary ②	A & B	≥9 <9, ≥2 <2	125 ① 167 max. 300 max.	≥9 <9	125 ① 167 max.
3	Feeder Circuit with OCP	1Ø	2	None on Either	—		Not Required		Not Required
4	Feeder Circuit with OCP	1Ø 3Ø	More than 2 Not Applicable	Secondary Only ②	B		Not Required	9 <9	125 ① 167 max.

Acme® Transformer™ Products vs. U/L Insulation Systems & U/L Standards

Acme Construction Style	Acme Catalog Product Name	U/L Standard	U/L Product Category	U/L File Number	U/L Listed Control #	U/L Insulation Number	Insulation System Temp./C	kVA Single Phase	kVA Three Phase
Enclosed	General Purpose and Buck-Boost	506	XPTQ	E79947V1	50B8	B3223	130	.050-.150	N/A
Compound Filled (Encapsulated)	General Purpose Buck-Boost & DIT	506	XPTQ	E79947V1	50B8	X3221 H3221	155 180	.25-5.0 7.5-25.0	3.0-6.0 7.5-75.0
	Panel Tran®	1062	YEFR	E56936V1	N/A	H3180 H3221	180 180	5.0 7.5-25.0	N/A 9.0-30.0
	Swim Pool & Spa	379	HDGV	E111069V1	N/A	H3180	180	0.10-.30	N/A
	Hardwired CVR	1012	QQFU	E86492V1	6B81	B3223 X3221	130 155	.25-3.0 5.0-15.0	N/A N/A
	Portable PLC	1012	QQFU	E86492V1	60B1	B3223	130	.25-2.0	N/A
Open Core & Coil	Industrial Control	506	XPTQ	E79947V1	50B8	B3223	130	.050-5.0	N/A
Air Cooled Ventilated & Non Ventilated	General Purpose Opti-Miser® & DIT	1561	XQNX	E12547V3	542B	C3222	220	37.5-250.0	25-1000
Enclosed	Air Conditioning and Refrigeration Appliance	NONE	NONE	NONE	N/A	NONE	130	.085-2.0	N/A

① % of rated current (or next higher standard rating).

② In cases where the secondary is overcurrent protected, the primary overcurrent protection rating can be no more than 250% (2.5 times) full load amps (shown on above chart). For example, if a 10 kVA, single phase transformer has a 480V primary and a 120/240 secondary, and the secondary is overcurrent protected, maximum primary overcurrent protection rating is 20.8 amps (full load current) x 2.5 (250%) = 52. Therefore, use a standard 50 amp fuse or breaker selected from NEC Section 240-6 (below).

Section 240-6 of the 1999 National Electrical Code. The standard ampere ratings for fuses and inverse time circuit breakers shall be considered 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100, 110, 125, 150, 175, 200, 225, 250, 300, 350, 400, 450, 500, 600, 700, 800, 1000, 1200, 1600, 2000, 2500, 3000, 4000, 5000 and 6000 amperes. **Exception:** Additional standard ratings for fuses shall be considered 1, 3, 6, 10, and 601. **"Extracted by permission from ANSI/NFPA 70-1999, National Electrical Code®, Copyright®,1999, National Fire Protection Association, Boston, MA."**

Acme Electric–Power Distribution Products Division has never used polychlorinated biphenyls (PCBs) in the manufacture of our quality products.

Alphanumerical Catalog Number Index

This alphanumerical listing of catalog numbers has been prepared to help you locate the appropriate page, when only the catalog number is known. It is arranged in alphanumerical order according to the first letter of the catalog number.

ALPHANUMERICAL CATALOG NUMBER INDEX

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For over eighty-eight years, Acme Electric has been manufacturing Power Conditioning Equipment for use in industrial, commercial and OEM applications. Built on a reputation for superior service, quality and technical expertise in the transformer market, Acme is regarded as a true industry leader.

Dry Type General Purpose Transformers

Acme Electric is a full line manufacturer of low voltage (600V and below) dry type distribution transformers using both copper and aluminum conductor, offering an array of products between 0.05 -1000 KVA.

All Acme products are designed, constructed and rated to meet or exceed the standards established by NEMA, ANSI and IEEE. With few exceptions, all ACME transformers are UL Listed.

K-Factor Transformers

Non-sinusoidal harmonic currents are created by much of today's electronic equipment. In fact, the switch mode power supply found in desktop computers, data processors and other office equipment is a major source of harmonic currents. Other sources include electronic ballasts, variable frequency drives, heating controls and rectifier circuits.

These non-linear loads can cause the transformer's neutral conductor to overheat, requiring special transformer design. Acme's non-linear load isolation transformers use special winding techniques to minimize the eddy current losses generated by harmonic currents. A double-sized neutral conductor handles the excessive neutral current found in non-linear load applications, preventing the transformer from overheating.

Harmonic Mitigating Transformers

Harmonic currents can sometimes cause equipment to malfunction, motors to burn out, circuit breakers to trip, and fuses to blow. In such a case, there is an advantage to specifying a transformer that treats the harmonic anomalies versus simply tolerating them. Acme's Harmonic Mitigating Transformers offer the best solution for combating harmonics associated with non-linear loads.

These foil wound transformers will, by nature, be smaller, more efficient, and have lower eddy current losses than their wire wound counterparts. Acme's Harmonic Mitigating Transformers utilize a time proven zig-zag connection in the secondary circuit that results in a phase shift of the triplen harmonics and causes them to cancel one another. This technology not only results in cooler operation and "cleaner power", but also provides a more energy efficient means of dealing with harmonic problems.

CSL-3 / NEMA Premium Transformers

The Acme POWERWISE C3 sets a new standard for efficiency and reliability. Due to the use of more efficient core material and higher-grade electrical steel, POWERWISE C3 transformers are the most efficient commercially available transformers. With a 30% increase in efficiency performance over standard TP-1 transformers, these energy-efficient units exceed the requirements of the US Department of Energy Candidate Standard Level (CSL) 3 performance standard. POWERWISE C3 transformers achieve the lowest life cycle costs by reducing annual energy costs. Depending on the size of the transformer, this can mean thousands of dollars saved per transformer. And, because they generate lower losses, they reduce power drawn from generating stations, resulting in lower greenhouse gas emissions and less smog.

Acme POWERWISE C3 transformers are copper wound, 3-phase common-core, dry-type ventilated isolation transformers. Each transformer is meticulously constructed to ANSI/IEEE Standards and is UL and CSA listed. The POWERWISE C3 transformer is a perfect choice for K through 12, college, university, healthcare, governmental and commercial buildings where the total life cycle cost of the facility and its electrical system is a priority.

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Peace of mind

Rock-solid power solutions for over 80 years.

Acme Electric®

In today's high-tech environments, it's often the products you don't see that are the most critical to your success. That's why leaders across a broad spectrum of industries look to Acme Electric for power conversion and power conditioning equipment. While our products work quietly behind the scenes, our engineers and researchers are out in front, discovering new ways to deliver power more efficiently in a world ever aware of energy consumption and generation. Join customers around the globe who trust Acme for reliable, efficient solutions in industrial, commercial, and OEM applications.

Acme Electric • N85 W12545 Westbrook Crossing • Menomonee Falls, WI 53051 • Phone: 262.293.1500 • acmetransformer.com

ACME ELECTRIC 10-YEAR LIMITED* WARRANTY

Acme Electric (Acme) warrants to the original purchaser to correct by repair, replacement or refund of original purchase price, at Acme's option, products manufactured and sold by its Power Distribution Products Division, that may fail in service within the applicable period as set forth below, from the date of manufacture provided however, that conditions of operation have been normal at all times, and that the equipment has not been subjected to abnormal stress from such causes as incorrect primary voltage or frequency, improper ventilation or improper use. This warranty is made on the condition that prompt notice of defect is given to Acme in writing within the warranty period, and that Acme's inspection reveals to its satisfaction that the original purchaser's claim is valid under the terms of this warranty. Acme's obligation under this warranty, which is in lieu of all other warranties, express or implied, including the implied warranty of fitness for a particular purpose and merchantability, is limited to replacing or repairing defective products or parts, free of charge, provided they are returned to the factory, or refund of original purchase price, at Acme's option. However, purchased components (except for timers and photocells used in low voltage lighting power supplies) including but not limited to capacitors, circuit breakers, terminal blocks, batteries, fuses and tubes shall not be covered under this warranty. Repairs or replacement deliveries shall not interrupt or prolong the term of this warranty. Acme will not be liable for any special, indirect, consequential or incidental damages, including, without limitation, from loss of use, data, function or profits deriving out of or in connection with the use or performance of the product and shall have no liability for payment of any other damages whether in an action of contract, strict liability or tort. The remedy provided herein states Acme Electric's entire liability and buyer's sole and exclusive remedy here under. Rights may vary in certain states.

***Warranty Period:**
Standard Catalog Transformers — 10-year limited; Low Voltage Lighting Power Supplies, transformer — 10-year limited, True-Power® Power Line Conditioners, — 10-year limited; Custom products — 1 year.

Acme® Transformers™ are Shielded for Cleaner Power – Free!

Shielding is a FREE standard feature. Acme transformers have built-in noise and surge protection provided by internal electrostatic shielding. It's a standard feature on Acme general purpose dry-type transformers.

Acme transformers provide clean power. They provide noise and surge protection for entire feeder and branch circuits, plus every connected load. And, they establish a separately derived circuit and provide a solid single point ground—all essential for cleaner power. Install Acme transformers, and take the most fundamental and cost effective step toward cleaner power.

The more you use, the cleaner your system. The Acme shield constantly works to trap, knockdown and shunt potentially damaging noise and voltage spikes to ground at an average reduction ratio of 100:1. The more Acme shielded transformers you use on the feeder and branch circuits, the cleaner your system becomes. Use two Acme transformers on the same feeder and branch circuits, and get 10,000:1 reduction.

With Acme you get all the extra benefits of cleaner power, absolutely FREE!

Acme Electric®
Shielded for cleaner power™