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GENERAL INFORMATION
TRANSFORMER TYPE DESIGNATIONS

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CONVENTIONAL TRANSFORMERS
OIL-IMMERSED, SELF-COOLED (OISC)

<u>TYPE</u>	<u>DESCRIPTION</u>
CA	HIGH AND LOW VOLTAGE TANK WALL BUSHINGS, SINGLE PHASE.
CB	HIGH AND LOW VOLTAGE TANK WALL BUSHINGS, THREE PHASE.
CC	CORE AND COIL REPLACEMENT UNITS.
CD	HIGH VOLTAGE COVER BUSHINGS, LOW VOLTAGE TANK WALL BUSHINGS, SINGLE PHASE.
CE	ONE HIGH VOLTAGE COVER BUSHING, LOW VOLTAGE TANK WALL BUSHINGS, SINGLE PHASE.
CF	HIGH VOLTAGE COVER BUSHINGS, LOW VOLTAGE TANK WALL BUSHINGS, THREE PHASE.
CG	HIGH AND LOW VOLTAGE COVER BUSHINGS, SINGLE PHASE.
CH	HIGH AND LOW VOLTAGE COVER BUSHINGS, THREE PHASE.
CP	PAD MOUNT, SINGLE PHASE AND THREE PHASE.
CR	RURAL LINE TRANSFORMER TO MEET REA SPECIFICATIONS, SINGLE PHASE.
CS	SUBWAY TYPE, SINGLE PHASE.
CT	SUBWAY TYPE, THREE PHASE.
CZ	SPECIAL, NOT COVERED BY ABOVE.

PROTECTED TRANSFORMERS
OIL-IMMERSED, SELF-COOLED (OISC)

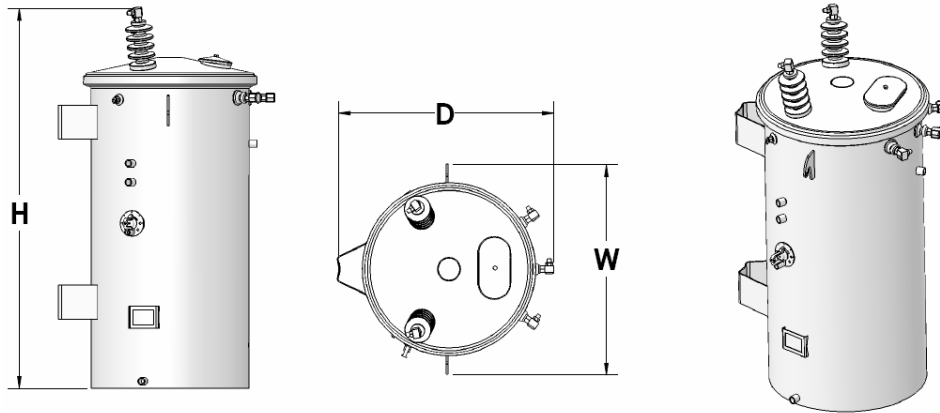
CSP*	ONE FUSE PER HIGH VOLTAGE BUSHING, ONE ARRESTER PER HIGH VOLTAGE BUSHING, INTERNAL SECONDARY CIRCUIT BREAKER.(NOTE: CSP TRANSFORMERS WITH TWO HIGH VOLTAGE BUSHINGS AND ONE ARRESTER, SPECIAL ARRESTERS, GAP AND ARRESTER COMBINATION, ETC. SHOULD BE EXPLAINED ON THE S.O.)
CP*	ONE FUSE PER HIGH VOLTAGE BUSHING, INTERNAL SECONDARY CIRCUIT BREAKER.
SP*	ONE FUSE PER HIGH VOLTAGE BUSHING, ONE ARRESTER PER HIGH VOLTAGE BUSHING.

***ALL PROTECTED DISTRIBUTION TRANSFORMERS WILL CARRY THE ABOVE TYPE DESIGNATION, FOLLOWED BY A DASH, FOLLOWED BY THE SECOND LETTER OF THE CONVENTIONAL TYPE DESIGNATION.**

VANTRAN
OVERHEAD DISTRIBUTION TRANSFORMERS
SINGLE PHASE ONAN 65°C RISE

WACO, TEXAS
60 HZ

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GENERAL NOTES

1. REFER TO FACTORY FOR SPECIAL FEATURES OR ACCESSORIES.
2. REFER TO FACTORY FOR TRANSFORMERS WITH VOLTAGES NOT LISTED IN CATALOG.
3. TAP TRANSFORMERS SUPPLIED WITH EXTERNAL TAPCHANGER.
4. REFER TO FACTORY FOR SPECIAL PRICING OF QUANTITY ORDERS OR TRUCK LOAD LOTS.
5. REFER TO FACTORY FOR FREIGHT CHARGES.
6. REFER TO FACTORY FOR CSP TYPE.

DATA SUBJECT TO CHANGE

VANTRAN
TRANSFORMER MECHANICAL DATA
SINGLE PHASE ONAN 65°C RISE

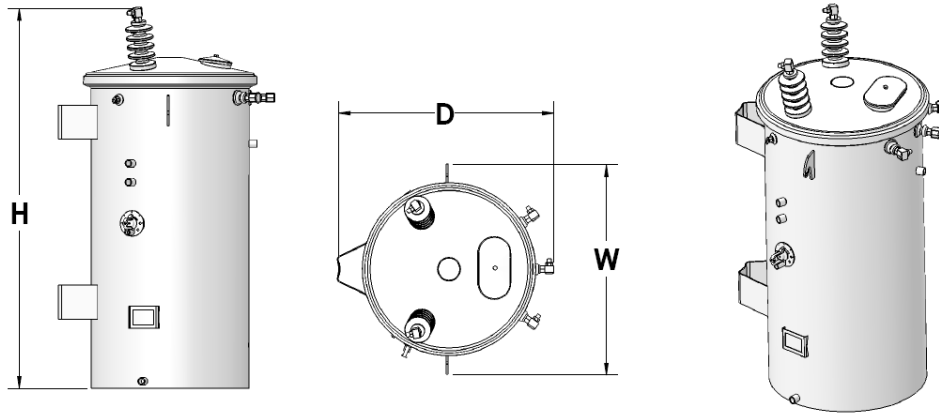
WACO, TEXAS

60 HZ

SECTION 15

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RATING		MECHANICAL DATA				
LOW VOLT	KVA	DIMENSIONS (APPROX. INCHES)			GAL OIL	APPROX. NET WGT.
		H	W	D		
HIGH VOLTAGE – 2400/4160Y (60 KV-BIL) · 4160/7200Y – 4800/8320Y (75 KV BIL) · 7200/12470Y – 7620/13200Y – 8320/14400Y – 12000 – 12470 (95 KV BIL)						
120/240 240/480 AND 277	10	32	17	20	8	220
	15	33	18	21	10	265
	25	36	20	23	15	370
	37½	42	20	23	17	490
	50	45	22	25	26	675
	75	50	28	28	40	870
	100	56	28	28	47	1115
120/240	167	54	30	33	51	1385
	250	62	40	32	86	2100
	333	62	43	36	84	2300
240/480 AND 277	167	54	30	33	51	1385
	250	62	40	32	86	2100
	333	62	43	36	84	2300
	500	62	53	41	80	2900

DATA SUBJECT TO CHANGE

DATA SUBJECT TO CHANGE

SINGLE PHASE

VANTRAN
PADMOUNTED TRANSFORMERS
 ONAN 65°C RISE
 VANPAD I – 125KV-BIL & BELOW

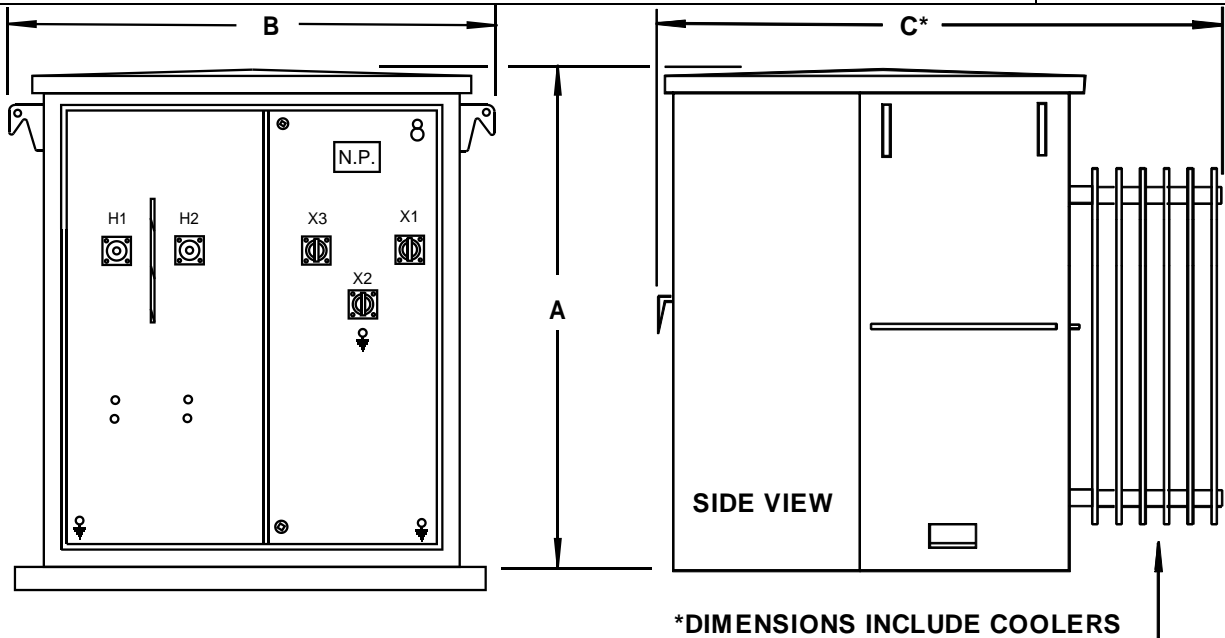
WACO, TEXAS

60 HZ

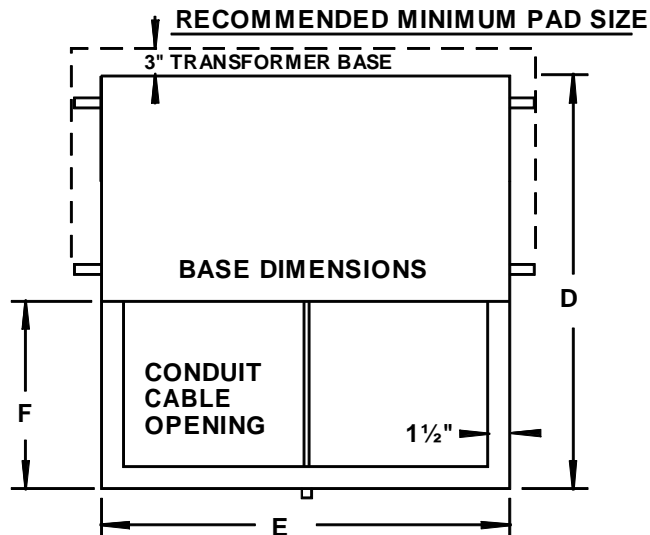
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FRONT VIEW - DOORS REMOVED

WEIGHTS & DIMENSIONS

<u>KVA</u>	<u>T.W.</u>	<u>A</u>	<u>B</u>	<u>C</u>
25	900	34	40	36
37½	1000	34	40	40
50	1100	34	40	40
75	1400	34	40	40
100	1500	34	40	40
167	2000	44	40	*44
250	2400	44	40	*51
333	3100	44	40	*58
500	4000	56	49	*66

BASE DIMENSIONS

<u>KVA</u>	<u>D</u>	<u>E</u>	<u>F</u>	<u>GALLONS</u>
25	33	33	17	60
37½	37	33	17	60
50	37	33	17	70
75	37	33	17	67
100	37	33	17	65
167	39	33	17	105
250	39	33	17	105
333	42	33	17	105
500	42	40	17	180

TRANSFORMERS CONFORM TO NEMA & ANSI
 STANDARDS WHERE APPLICABLE.

TRANSFORMER TESTS PER ANSI C57.12.90

ADD 10" TO OVERALL HEIGHT FOR BAYONET FUSES.

TRANSFORMERS SUPPLIED WITH STANDARD
 DISTRIBUTION ACCESSORIES PER ANSI C57.12.
 REFER TO FACTORY FOR SPECIAL FEATURES.

DEAD FRONT SAME DIMENSIONS

STANDARD ACCESSORIES

1. TAMPERPROOF, REMOVABLE, BOLTED-ON CABINET WITH OPEN BOTTOM, REMOVABLE LIFTOFF DOORS, STAINLESS STEEL HINGES AND THREE POINT LATCHING MECHANISM. DOORS DESIGNED TO PREVENT ACCESS TO HV COMPARTMENT UNTIL LV COMPARTMENT DOOR IS OPENED. PROVISIONS FOR PADLOCKING ON LV COMPARTMENT DOOR. CAPTIVE PENTA HEAD COMPARTMENT DOOR LOCKING BOLT PROVIDED.
2. REMOVABLE COVER (TAMPERPROOF)
3. WELDED ON COVER
4. BOLTED ON INSPECTION PLATE
5. LIFTING LUGS (4EA. REQUIRED)
6. DIAGRAMMATIC CORROSION RESISTANT NAMEPLATE
7. STEEL BARRIER BETWEEN HV & LV COMPARTMENTS
8. TWO EACH LV BUSHINGS WITH NEMA 4 HOLE SPADE TERMINALS
9. ONE EACH NEUTRAL BUSHING WITH NEMA 4 HOLE SPADE TERMINAL AND REMOVABLE GROUND STRAP (1/2" – 13 TAP GROUND BOSS)
10. TWO EACH HIGH VOLTAGE BUSHINGS WITH EYEBOLT TERMINALS
11. BOTTOM OF TRANSFORMER UNDERCOATED TO PREVENT CORROSION
12. TANK GROUND BOSSES (1/2" – 13 TAPS) (EACH COMPARTMENT)
13. TRANSFORMER BASE WITH PROVISIONS FOR ROLLING
14. AUTOMATIC PRESSURE RELIEF VALVE
15. DRAIN PLUG
16. FILLER PLUG
17. EXTERNALLY OPERATED NO-LOAD TAPCHANGER
18. PROVISIONS FOR MOUNTING SURGE ARRESTERS
19. PAINT COLOR MUNSELL 7.0 GY 3.29/1.5 BELL GREEN

VANTRAN

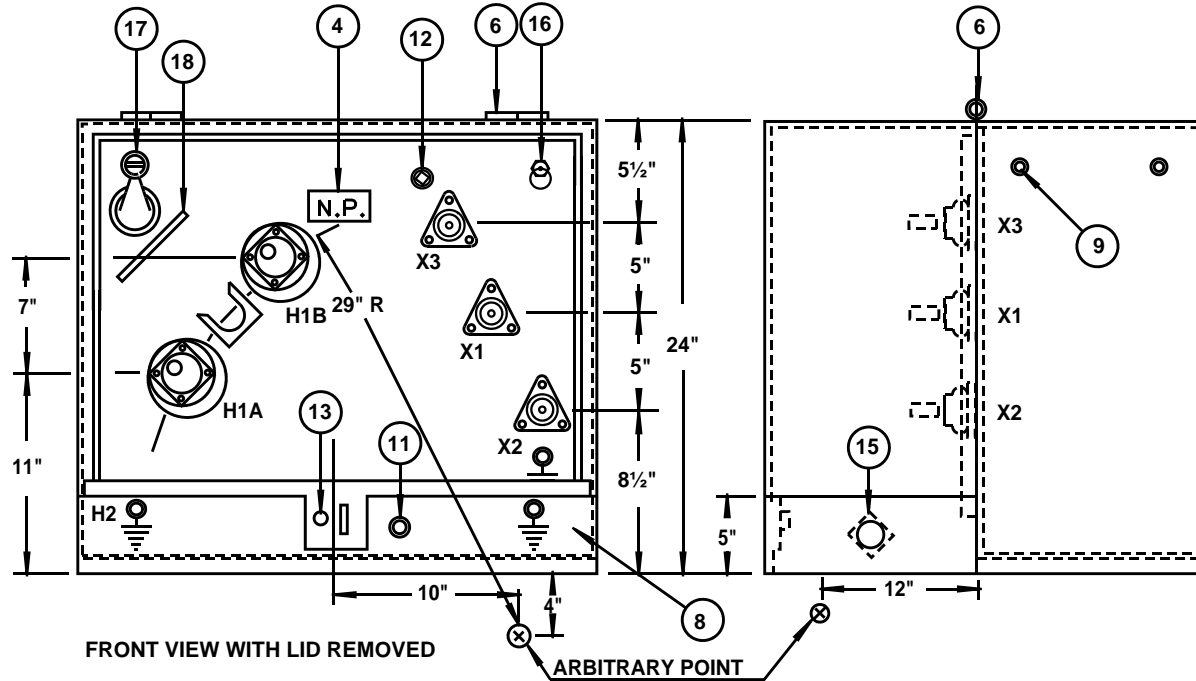
WACO, TEXAS

LOW PROFILE PAD MOUNTED TRANSFORMERS – MINERAL OIL FILLED
SINGLE PHASE OISC 65°C RISE 60 HZ

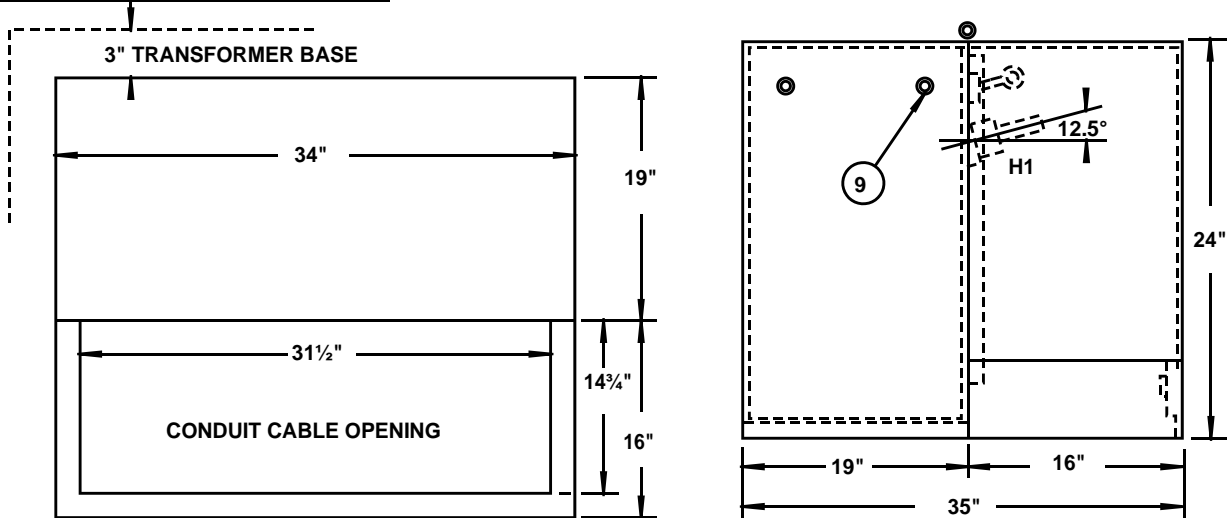
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RECOMMENDED MINIMUM PAD SIZE



ROUTINE TESTS PER ANSI C57.12.90

KVA	T.W.	GAL OIL
15	800	57
25	825	55
37 1/2	900	53
50	1000	51
75	1100	49

TRANSFORMERS SUPPLIED WITH
STANDARD ACCESSORIES PER
ANSI C57.12.25 REFER TO FACTORY FOR
SPECIAL FEATURES

**15 KV & BELOW
STANDARD ACCESSORIES**

1. TWO EACH DEAD FRONT LOADBREAK SAFETY PLUG HIGH VOLTAGE BUSHINGS OR BUSHING WELLS AS REQUIRED
2. THREE EACH 5/8" EPOXY STUD LOW VOLTAGE BUSHINGS (EXTERNALLY MOUNTED)
3. LOW VOLTAGE NEUTRAL STUD GROUNDED TO TANK WITH DETACHABLE STRAP
4. DIAGRAMMATIC CORROSION RESISTANT NAMEPLATE
5. TANK GROUND BOSS (1/2" – 13 TAP)
6. HINGED FRONT COVER SUITABLE FOR REMOVING IN OPEN POSITION
7. BOTTOM OPEN FOR CONDUIT CABLE ENTRANCE
8. REMOVABLE FRONT SILL
9. LIFTING LUGS REMOVABLE
10. FRONT COMPARTMENT LIFTING HANDLE (RECESSED) PROVISION FOR PADLOCKING (7/16" PADLOCK)
11. 1/2" DRAIN PLUG
12. ONE INCH FILLING PLUG
13. PAINT COLOR MUNSELL 7.0 GY 3.29/1.5 BELL GREEN
14. BOTTOM OF TRANSFORMER UNDERCOATED TO PREVENT CORROSION
15. 2" ACCESS HOLE WITH COVER IN SIDE OF SILL
16. AUTOMATIC PRESSURE RELIEF VALVE
17. LOADBREAK EXTERNALLY REMOVABLE BAYONET FUSE ASSEMBLY WITH INTERNAL FAULT SENSING ISOLATION LINK
18. HIGH VOLTAGE FUSE OIL DRIP SHIELD
19. HIGH VOLTAGE PARKING STAND

VANTRAN

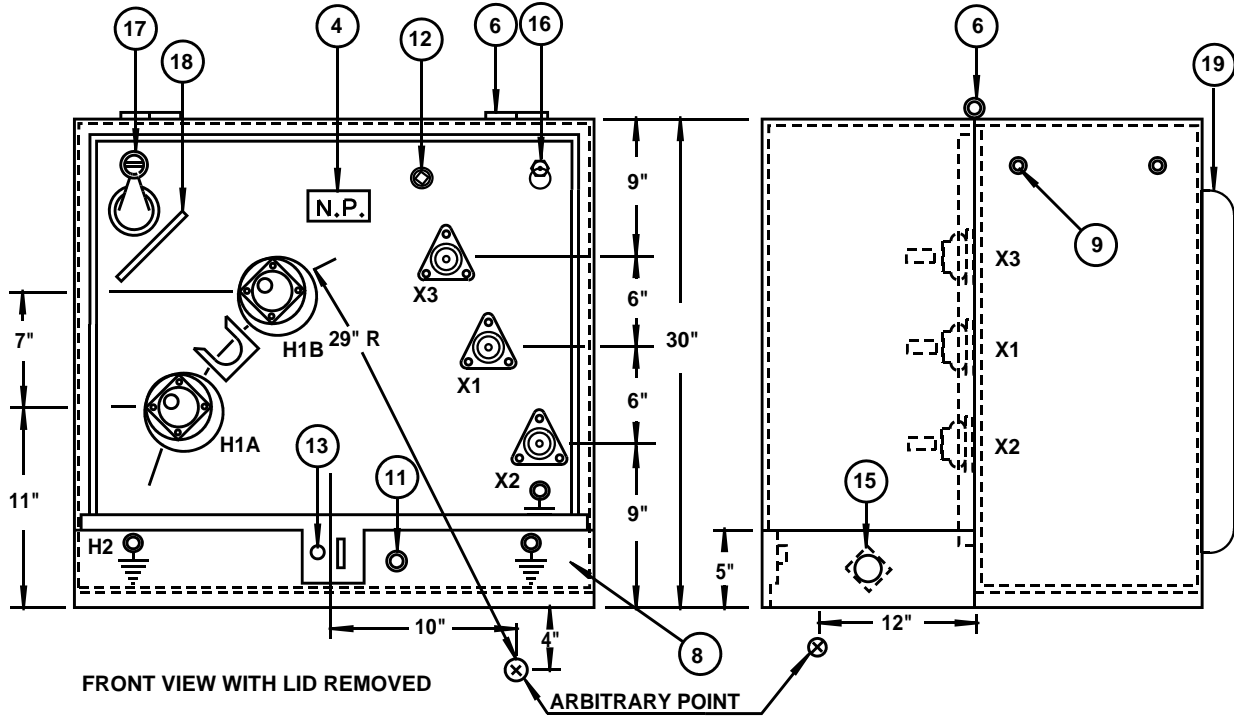
LOW PROFILE PAD MOUNTED TRANSFORMERS – MINERAL OIL FILLED
SINGLE PHASE OISC 65°C RISE 60 HZ

WACO, TEXAS

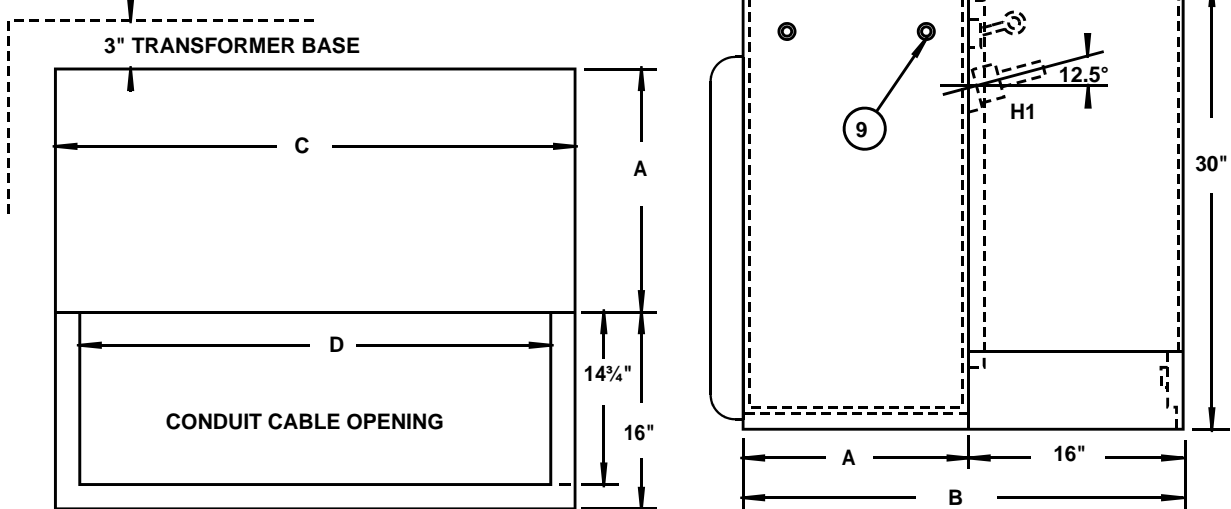
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RECOMMENDED MINIMUM PAD SIZE



ROUTINE TESTS PER ANSI C57.12.90

KVA	T.W.	GAL OIL	A	B	C	D
100	1400	65	20	36	34	31 1/2
167	1700	84	25	41	36	33 1/2

TRANSFORMERS SUPPLIED WITH
STANDARD ACCESSORIES PER
ANSI C57.12.25 REFER TO FACTORY
FOR SPECIAL FEATURES

15 KV & BELOW
STANDARD ACCESSORIES

1. TWO EACH DEAD FRONT LOADBREAK SAFETY PLUG HIGH VOLTAGE BUSHINGS OR BUSHING WELLS AS REQUIRED
2. THREE EACH 1" EPOXY STUD LOW VOLTAGE BUSHINGS (EXTERNALLY MOUNTED)
3. LOW VOLTAGE NEUTRAL STUD GROUNDED TO TANK WITH DETACHABLE STRAP
4. DIAGRAMMATIC CORROSION RESISTANT NAMEPLATE
5. TANK GROUND BOSS (1/2" – 13 TAP)
6. HINGED FRONT COVER SUITABLE FOR REMOVING IN OPEN POSITION
7. BOTTOM OPEN FOR CONDUIT CABLE ENTRANCE
8. REMOVABLE FRONT SILL
9. LIFTING LUGS REMOVABLE
10. FRONT COMPARTMENT LIFTING HANDLE (RECESSED) PROVISION FOR PADLOCKING (7/16" PADLOCK)
11. 1/2" DRAIN PLUG
12. ONE INCH FILLING PLUG
13. PAINT COLOR MUNSELL 7.0 GY 3.29/1.5 BELL GREEN
14. BOTTOM OF TRANSFORMER UNDERCOATED TO PREVENT CORROSION
15. 2" ACCESS HOLE WITH COVER IN SIDE OF SILL
16. AUTOMATIC PRESSURE RELIEF VALVE
17. LOADBREAK EXTERNALLY REMOVABLE BAYONET FUSE ASSEMBLY WITH INTERNAL FAULT SENSING ISOLATION LINK
18. HIGH VOLTAGE FUSE OIL DRIP SHIELD
19. COOLING FINS (167 KVA ONLY)
20. HIGH VOLTAGE PARKING STAND

VANTRAN

WACO, TEXAS

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MECHANICAL DATA 3 COIL TRANSFORMERS

PAGE 2

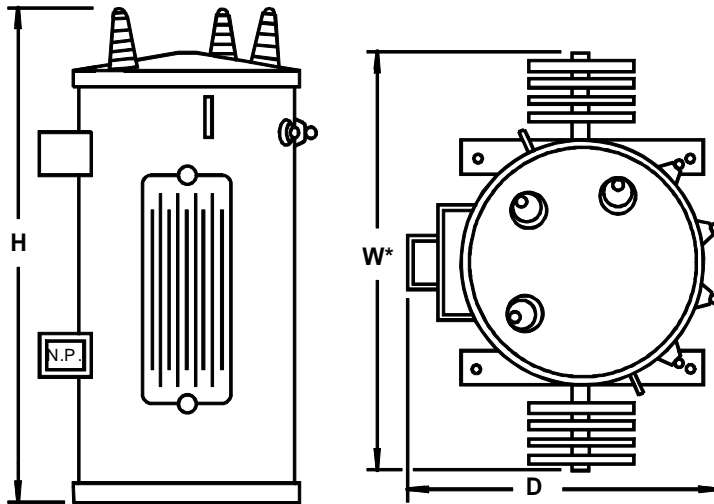
THREE PHASE

ONAN

65°C RISE

60 HZ

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**15 KV & BELOW – 95 KV BIL
TYPE CF****STANDARD ACCESSORIES**

1. 3 COVER MTD. HV BUSHINGS
2. 3 SIDEWALL MTD. LV BUSHINGS
3. 1 SIDEWALL MTD. LV NEUTRAL BUSHING
4. NAMEPLATE
5. GROUND BOSSES
6. EXTERNAL NO-LOAD TAPCHANGER
7. POLE MOUNTING HANGERS
8. LIFTING LUGS
9. RADIATORS 112½ KVA & ABOVE
10. BASE - U CHANNEL

ROUTINE TESTS PER ANSI C57.12.90

1. RATIO
2. POLARITY & PHASE RELATIONS
3. EXCITATION LOSS
4. EXCITATION CURRENT
5. APPLIED POTENTIAL
6. INDUCED POTENTIAL
7. LOAD LOSS & IMPEDANCE
8. NO-LOAD LOSS

**TRANSFORMERS CONFORM TO NEMA & ANSI
STANDARDS WHERE APPLICABLE****MECHANICAL DATA**

KVA RATING	DIMENSIONS (APPROX. INCHES)			HANGER TYPE	GAL OIL	APPROX. NET WEIGHT
	H	W	D			
15	62	27	29	A**	60	815
30	62	27	29	A**	56	930
45	62	27	29	A**	53	1000
75	62	27	29	A**	46	1175
112½	70	33*	29	B	66	1450
150	70	41*	29	B	59	1625
225	70	41*	32	C	48	1800
300	80	52*	32	C	80	2300

*** DIMENSIONS INCLUDE RADIATORS******TYPE "A" HANGER ON TYPE B SPACING**

VANTRAN

WACO, TEXAS

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MECHANICAL DATA 3 COIL TRANSFORMERS

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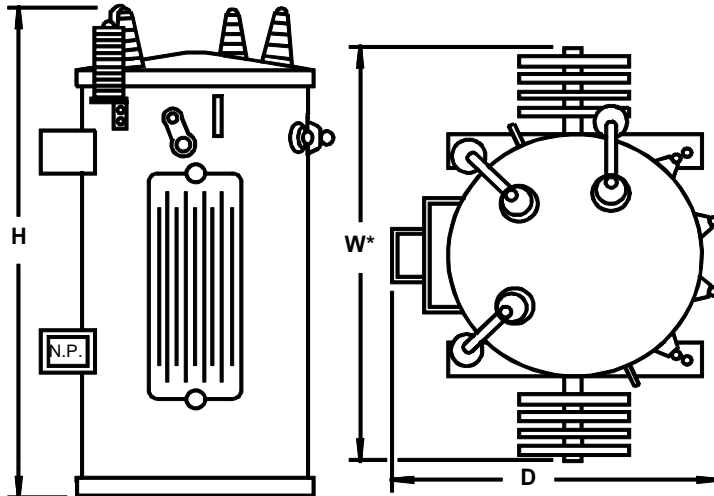
THREE PHASE

ONAN

65°C RISE

60 HZ

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**15 KV & BELOW – 95 KV BIL
TYPE CF****STANDARD ACCESSORIES**

1. 3 COVER MTD. HV BUSHINGS
2. 3 SIDEWALL MTD. LV BUSHINGS
3. 1 SIDEWALL MTD. LV NEUTRAL BUSHING
4. NAMEPLATE
5. GROUND BOSSES
6. EXTERNAL NO-LOAD TAPCHANGER
7. LIGHTNING ARRESTERS
8. POLE MOUNTING HANGERS
9. LIFTING LUGS
10. RADIATORS 112½ KVA & ABOVE
11. INT. SECONDARY BREAKER
12. INT. WEAK LINK FUSES
13. BASE - U CHANNEL

ROUTINE TESTS PER ANSI C57.12.90

1. RATIO
2. POLARITY & PHASE RELATIONS
3. EXCITATION LOSS
4. EXCITATION CURRENT
5. APPLIED POTENTIAL
6. INDUCED POTENTIAL
7. LOAD LOSS & IMPEDANCE
8. NO-LOAD LOSS

**TRANSFORMERS CONFORM TO NEMA & ANSI
STANDARDS WHERE APPLICABLE****MECHANICAL DATA**

KVA RATING	DIMENSIONS (APPROX. INCHES)			HANGER TYPE	GAL OIL	APPROX. NET WEIGHT
	H	W	D			
15	62	27	29	A**	60	815
30	62	27	29	A**	56	930
45	62	27	29	A**	53	1000
75	62	27	29	A**	46	1175
112½	70	33*	29	B	66	1450
150	70	41*	29	B	59	1625
225	70	41*	32	C	48	1800
300	80	52*	32	C	80	2300

*** DIMENSIONS INCLUDE RADIATORS******TYPE "A" HANGER ON TYPE B SPACING**

VANTRAN

PADMOUNTED TRANSFORMERS
OISC 65°C RISE
VANPAD III - 125KV-BIL & BELOW

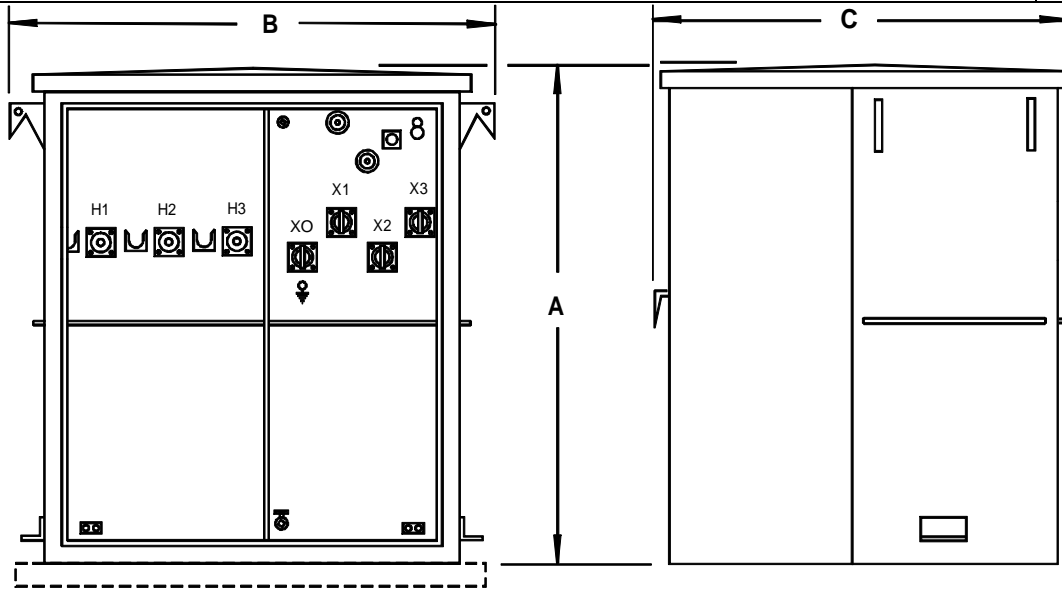
WACO, TEXAS

60 HZ

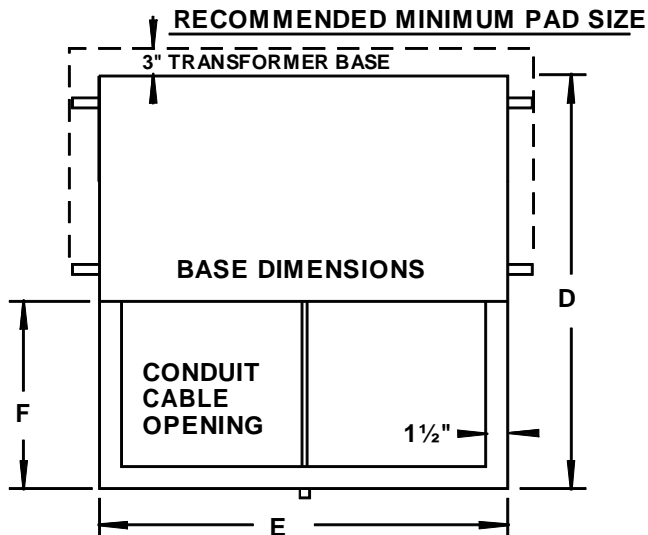
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FRONT VIEW - DOORS REMOVED



RECOMMENDED MINIMUM PAD SIZE

BASE DIMENSIONS

CONDUIT
CABLE
OPENING

1 1/2"

WEIGHTS & DIMENSIONS

KVA	T.W.	GAL.	A	B
30	1800	110	42	57
45	1900	110	42	57
75	2100	120	42	57
112 1/2	2400	130	42	57
150	2600	125	42	57

BASE DIMENSIONS

KVA	C	D	E	F
30	37	34	50	18
45	37	34	50	18
75	39	36	50	18
112 1/2	41	38	50	18
150	41	38	50	18

TRANSFORMERS CONFORM TO NEMA & ANSI
STANDARDS WHERE APPLICABLE.

TRANSFORMER TESTS PER ANSI C57.12.90

ADD 10" TO OVERALL HEIGHT FOR BAYONET FUSES.

TRANSFORMERS SUPPLIED WITH STANDARD
DISTRIBUTION ACCESSORIES PER ANSI C57.12.26
REFER TO FACTORY FOR SPECIAL FEATURES.

LIVE FRONT SAME DIMENSIONS

VANPAD III – 125KV-BIL & BELOW**STANDARD ACCESSORIES**

1. FOUR LIFTING HOOKS
2. PER ASTM D-3487 TYPE II MINERAL OIL FILLED WITH LESS THAN 1 P.P.M. OF P.C.B. AT TIME OF MANUFACTURE
3. JACKING PADS
4. ONE INCH DRAIN VALVE
5. TANK GROUNDING PADS (1/2" – 13 TAP) (EACH COMPARTMENT)
6. TRANSFORMER BASE DESIGNED FOR ROLLING
7. THREE LOW VOLTAGE BUSHINGS WITH NEMA 4 HOLE SPADE TERMINALS
8. ONE LV NEUTRAL BUSHING WITH NEMA 4 HOLE SPADE TERMINAL AND EXTERNAL GROUNDING STRAP (IF LOW VOLTAGE IS "Y" OR W/CENTER TAP)
9. NEUTRAL GROUND PAD (1/2" – 13 TAP)
10. DIAGRAMMATIC CORROSION RESISTANT NAMEPLATE
11. TAMPERPROOF, REMOVABLE, BOLTED ON CABINET WITH OPEN BOTTOM. REMOVABLE LIFT OFF DOORS, STAINLESS STEEL HINGES AND THREE POINT LATCHING MECHANISM. DOORS DESIGNED TO PREVENT ACCESS TO HV COMPARTMENT UNTIL LV COMPARTMENT DOOR IS OPENED. PROVISIONS FOR PADLOCKING ON LV COMPARTMENT DOOR. CAPTIVE PENTA HEAD COMPARTMENT DOOR LOCKING BOLT PROVIDED
12. THREE EACH DEAD FRONT HIGH VOLTAGE BUSHING WELLS ARRANGED FOR RADIAL FEED WITH PARKING STANDS
13. FULL LENGTH STEEL BARRIER BETWEEN HIGH VOLTAGE AND LOW VOLTAGE COMPARTMENTS
14. TAMPERPROOF, REMOVABLE COVER FOR ACCESS TO INSPECTION PLATE
15. TANK COVER WELDED ON
16. ONE INCH FILLING PLUG
17. BOLTED ON INSPECTION PLATE
18. AUTOMATIC PRESSURE RELIEF VALVE
19. BOTTOM OF TRANSFORMER UNDERCOATED TO PREVENT CORROSION
20. EXTERNAL NO-LOAD TAPCHANGER
21. PAINT COLOR MUNSELL 7.0 GY 3.29/1.5 BELL GREEN

VANTRAN

PADMOUNTED TRANSFORMERS
OISC 65°C RISE
VANPAD III - 125KV-BIL & BELOW

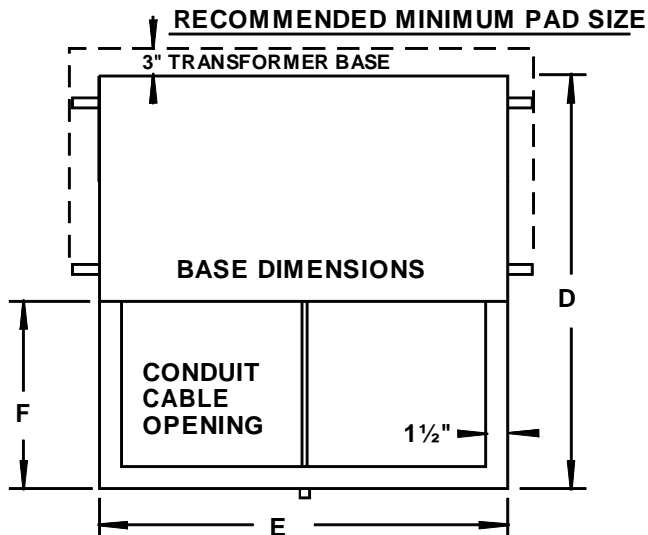
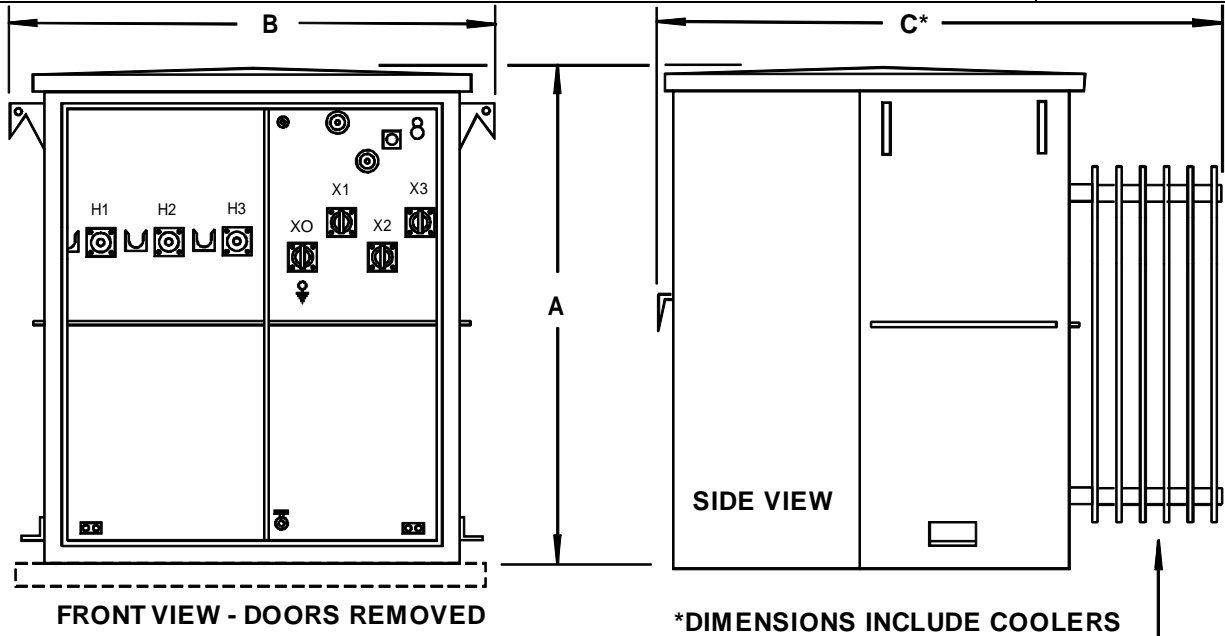
WACO, TEXAS

60 HZ

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WEIGHTS & DIMENSIONS				
KVA	T.W.	GAL.	A	B
225	3700	185	52	64
300	4100	200	52	64
500	5100	240	56	64
750	6700	310	65	65
1000	8200	400	72	67
1500	10000	430	72	73
2000	13000	480	72	82
2500	15000	590	78	82
3000	17000	610	78	82
3750	20000	750	82	92
5000	24000	840	82	98

ABOVE 5000 KVA REFER TO FACTORY

BASE DIMENSIONS				
KVA	C	D	E	F
225	*50	38	55	18
300	*50	40	55	18
500	*60	44	55	20
750	*60	46	56	20
1000	*66	48	58	20
1500	*72	48	64	20
2000	*74	50	70	20
2500	*83	54	70	22
3000	*91	56	70	22
3750	*91	60	80	24
5000	*99	62	86	24

ABOVE 5000 KVA REFER TO FACTORY

TRANSFORMERS CONFORM TO NEMA & ANSI STANDARDS WHERE APPLICABLE.

TRANSFORMER TESTS PER ANSI C57.12.90

ADD 10" TO OVERALL HEIGHT FOR BAYONET FUSES.

TRANSFORMERS SUPPLIED WITH STANDARD DISTRIBUTION ACCESSORIES PER ANSI C57.12.26 REFER TO FACTORY FOR SPECIAL FEATURES.

LIVE FRONT SAME DIMENSIONS

VANPAD III – 125KV-BIL & BELOW

STANDARD ACCESSORIES

1. FOUR LIFTING HOOKS
2. PER ASTM D-3487 TYPE II MINERAL OIL FILLED WITH LESS THAN 1 P.P.M. OF P.C.B. AT TIME OF MANUFACTURE
3. JACKING PADS
4. ONE INCH DRAIN VALVE
5. TANK GROUNDING PADS (1/2" – 13 TAP) (EACH COMPARTMENT)
6. THREE LOW VOLTAGE BUSHINGS WITH NEMA 4 OR 6 HOLE SPADE TERMINALS
7. ONE LV NEUTRAL BUSHING WITH NEMA 4 OR 6 HOLE SPADE TERMINAL AND EXTERNAL GROUNDING STRAP (IF LOW VOLTAGE IS "Y" OR W/CENTER TAP)
8. NEUTRAL GROUND PAD (1/2" – 13 TAP)
9. DIAGRAMMATIC CORROSION RESISTANT NAMEPLATE
10. FULL LENGTH STEEL BARRIER BETWEEN HIGH VOLTAGE AND LOW VOLTAGE COMPARTMENTS
11. THREE EACH DEAD FRONT HIGH VOLTAGE BUSHING WELLS ARRANGED FOR RADIAL FEED WITH PARKING STANDS
12. TAMPERPROOF, REMOVABLE, BOLTED ON CABINET WITH OPEN BOTTOM. REMOVABLE LIFT OFF DOORS, STAINLESS STEEL HINGES AND THREE POINT LATCHING MECHANISM. DOORS DESIGNED TO PREVENT ACCESS TO HV COMPARTMENT UNTIL LV COMPARTMENT DOOR IS OPENED. PROVISIONS FOR PADLOCKING ON LV COMPARTMENT DOOR. CAPTIVE PENTA HEAD COMPARTMENT DOOR LOCKING BOLT PROVIDED
13. TAMPERPROOF, REMOVABLE COVER FOR ACCESS TO INSPECTION PLATE
14. TRANSFORMER BASE DESIGNED FOR ROLLING
15. TANK COVER WELDED ON
16. ONE INCH FILLING PLUG
17. BOLTED ON INSPECTION UNDER COVER PLATE
18. AUTOMATIC PRESSURE RELIEF DEVICE
19. RADIATORS (FLEXOPLATE) (AS REQUIRED)
20. EXTERNAL NO-LOAD TAPCHANGER PADLOCKABLE IN ANY POSITION
21. OIL LEVEL GAUGE (750 KVA AND LARGER)
22. PROVISIONS FOR DIAL TYPE THERMOMETER (750 KVA AND LARGER)
23. PROVISIONS FOR PRESSURE VACUUM GAUGE (750 KVA AND LARGER)
24. BOTTOM OF TRANSFORMER UNDERCOATED TO PREVENT CORROSION
25. PAINT COLOR MUNSELL 7.0 GY 3.29/1.5 BELL GREEN

VANTRAN

PADMOUNTED TRANSFORMERS

THREE PHASE

OISC

65°C RISE

WACO, TEXAS

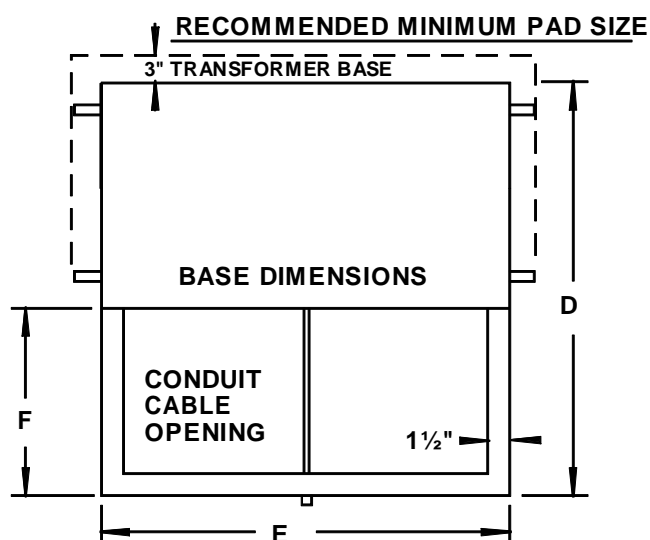
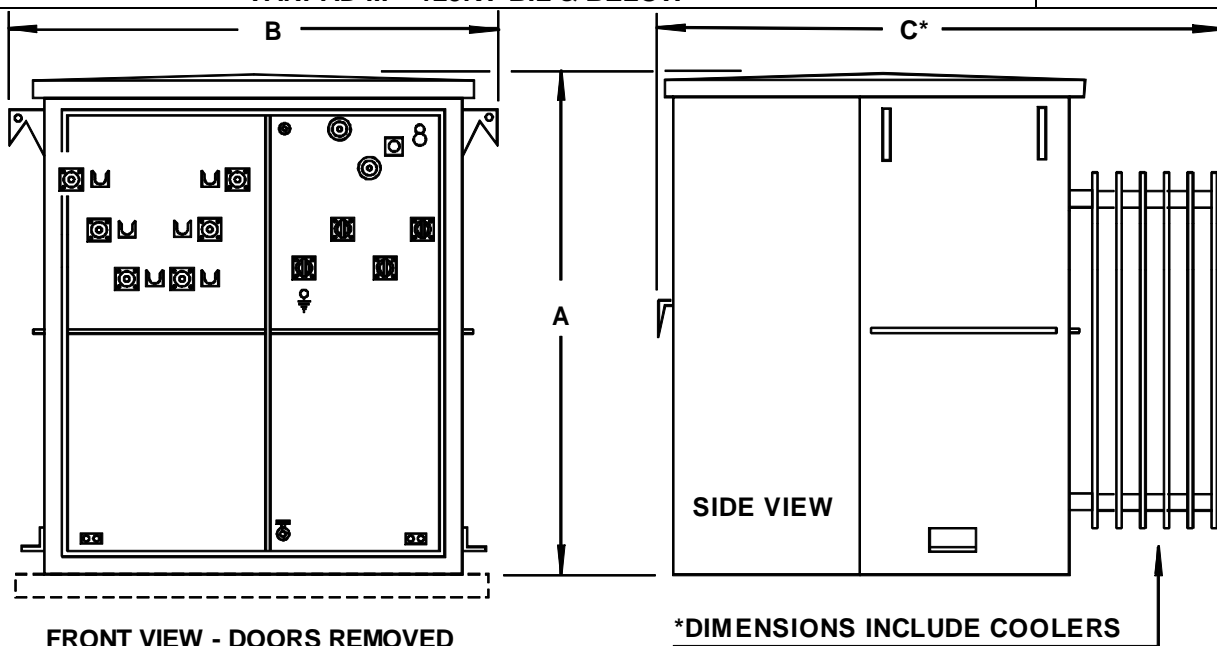
60 HZ

VANPAD III - 125KV-BIL & BELOW

SECTION 18

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WEIGHTS & DIMENSIONS				
KVA	T.W.	GAL.	A	B
30	2500	165	52	63
45	2600	165	52	63
75	2800	180	52	63
112½	3100	195	52	63
150	3300	190	52	63
225	4300	240	56	67
300	4600	235	56	67
500	6000	300	62	69
750	7500	370	65	74
1000	9100	450	72	74
1500	10500	435	72	74
2000	13000	480	72	82
2500	15000	590	78	82
3000	17000	610	78	82
3750	20000	750	82	92
5000	24000	840	82	98

ABOVE 5000 KVA REFER TO FACTORY

BASE DIMENSIONS

KVA	C	D	E	F
30	37	34	56	18
45	37	34	56	18
75	39	36	56	18
112½	41	38	56	18
150	41	38	56	18
225	*50	40	58	18
300	*50	40	58	18
500	*58	44	60	20
750	*60	46	65	20
1000	*66	48	65	20
1500	*72	48	65	20
2000	*74	50	70	20
2500	*83	54	70	22
3000	*91	56	70	22
3750	*91	60	80	24
5000	*99	62	86	24

ABOVE 5000 KVA REFER TO FACTORY

TRANSFORMERS CONFORM TO NEMA & ANSI STANDARDS WHERE APPLICABLE.

TRANSFORMER TESTS PER ANSI C57.12.90

ADD 10" TO OVERALL HEIGHT FOR BAYONET FUSES.

TRANSFORMERS SUPPLIED WITH STANDARD DISTRIBUTION ACCESSORIES PER ANSI C57.12.26 REFER TO FACTORY FOR SPECIAL FEATURES.

LIVE FRONT SAME DIMENSIONS

VANPAD III – 125KV-BIL & BELOW**STANDARD ACCESSORIES**

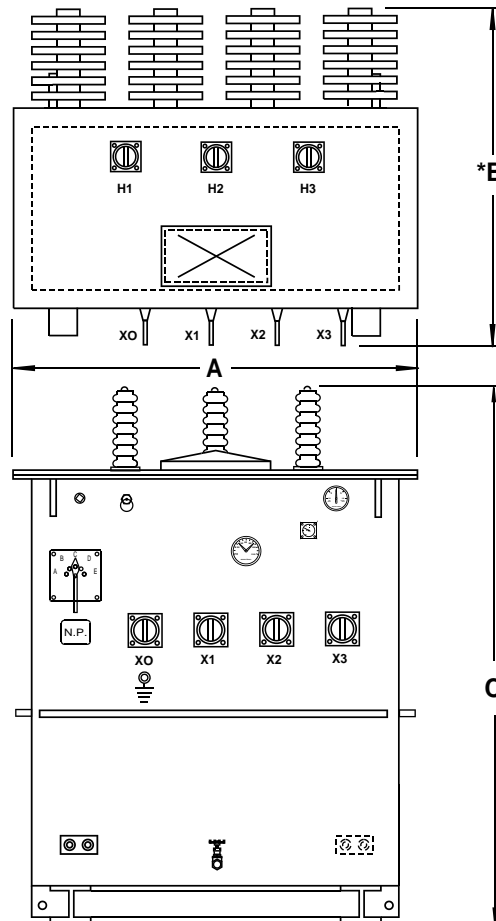
1. **FOUR LIFTING HOOKS**
2. **PER ASTM D-3487 TYPE II MINERAL OIL FILLED WITH LESS THAN 1 P.P.M. OF P.C.B. AT TIME OF MANUFACTURE**
3. **JACKING PADS**
4. **ONE INCH DRAIN VALVE**
5. **TANK GROUNDING PADS (1/2" – 13 TAP) (EACH COMPARTMENT)**
6. **THREE LOW VOLTAGE BUSHINGS WITH NEMA 4 OR 6 HOLE SPADE TERMINALS**
7. **ONE LV NEUTRAL BUSHING WITH NEMA 4 OR 6 HOLE SPADE TERMINAL AND EXTERNAL GROUNDING STRAP (IF LOW VOLTAGE IS "Y" OR W/CENTER TAP)**
8. **NEUTRAL GROUND PAD (1/2" – 13 TAP)**
9. **DIAGRAMMATIC CORROSION RESISTANT NAMEPLATE**
10. **FULL LENGTH STEEL BARRIER BETWEEN HIGH VOLTAGE AND LOW VOLTAGE COMPARTMENTS**
11. **SIX EACH DEAD FRONT HIGH VOLTAGE BUSHING WELLS ARRANGED FOR LOOP FEED WITH PARKING STANDS**
12. **TAMPERPROOF, REMOVABLE, BOLTED ON CABINET WITH OPEN BOTTOM. REMOVABLE LIFT OFF DOORS, STAINLESS STEEL HINGES AND THREE POINT LATCHING MECHANISM. DOORS DESIGNED TO PREVENT ACCESS TO HV COMPARTMENT UNTIL LV COMPARTMENT DOOR IS OPENED. PROVISIONS FOR PADLOCKING ON LV COMPARTMENT DOOR. CAPTIVE PENTA HEAD COMPARTMENT DOOR LOCKING BOLT PROVIDED**
13. **TAMPERPROOF, REMOVABLE COVER FOR ACCESS TO INSPECTION PLATE**
14. **TRANSFORMER BASE DESIGNED FOR ROLLING**
15. **TANK COVER WELDED ON**
16. **ONE INCH FILLING PLUG**
17. **BOLTED ON INSPECTION UNDER COVER PLATE**
18. **AUTOMATIC PRESSURE RELIEF DEVICE**
19. **RADIATORS (FLEXOPLATE) (AS REQUIRED)**
20. **EXTERNAL NO-LOAD TAPCHANGER PADLOCKABLE IN ANY POSITION**
21. **OIL LEVEL GAUGE (750 KVA AND LARGER)**
22. **PROVISIONS FOR DIAL TYPE THERMOMETER (750 KVA AND LARGER)**
23. **PROVISIONS FOR PRESSURE VACUUM GAUGE (750 KVA AND LARGER)**
24. **BOTTOM OF TRANSFORMER UNDERCOATED TO PREVENT CORROSION**
25. **PAINT COLOR MUNSELL 7.0 GY 3.29/1.5 BELL GREEN**

VANTRAN **WACO, TEXAS**
SUBSTATION TYPE TRANSFORMERS – MINERAL OIL FILLED
THREE PHASE ONAN 65°C RISE 60 HZ
125 KV BIL AND & BELOW

SECTION 19

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WEIGHTS & DIMENSIONS

<u>KVA</u>	<u>TOT. WT.</u>	<u>GAL OIL</u>	<u>A</u>	<u>B</u>	<u>C</u>
112½	2500	120	44	30	66
150	2600	115	44	30	66
225	3700	185	52	*39	70
300	4100	200	52	*40	70
500	5100	240	56	*51	70
750	6700	310	60	*53	80
1000	8200	390	62	*57	86
1500	10000	425	68	*57	86
2000	13000	480	72	*66	92
2500	15000	590	78	*70	92
3000	17000	610	78	*78	92
3750	20000	750	82	*80	92
5000	24000	840	82	*90	97

*DIMENSIONS INCLUDE RADIATORS (225 KVA AND LARGER)
 ABOVE 5000 KVA REFER TO FACTORY

STANDARD ACCESSORIES

1. RADIATORS (FLEXOPLATE) (AS REQUIRED) 300 KVA AND LARGER
2. WELDED ON COVER
3. BOLTED ON INSPECTION PLATE
4. THREE EACH COVERMOUNTED HIGH VOLTAGE BUSHINGS WITH MECHANICAL EYEBOLT CONNECTORS
5. THREE EACH LOW VOLTAGE BUSHINGS WITH 4 OR 6 HOLE SPADE TERMINALS. ONE EACH LOW VOLTAGE NEUTRAL BUSHING WITH 4 OR 6 HOLE SPADE TERMINAL AND DETACHABLE GROUND STRAP
6. LIFTING HOOKS (4 REQUIRED)
7. AUTOMATIC PRESSURE RELIEF VALVE
8. ONE INCH UPPER FILTER PRESS CONNECTION AND FILLER PLUG
9. PRESSURE – VACUUM GAUGE
10. LIQUID LEVEL GAUGE - MAGNETIC
11. DIAL TYPE THERMOMETER
12. EXTERNAL TAPCHANGER HANDLE (WITH PROVISIONS FOR PADLOCKING)
13. DIAGRAMMATIC CORROSION RESISTANT NAMEPLATE
14. TWO EACH TANK GROUND PADS, ONE ON BACK SIDE OF TANK
15. ONE INCH DRAIN VALVE AND FILTER PRESS CONNECTION
16. TRANSFORMER BASE WITH PROVISIONS FOR ROLLING
17. PER ASTM D-3487 TYPE II MINERAL OIL FILLED WITH LESS THAN 1 P.P.M. OF P.C.B. AT TIME OF MANUFACTURE
18. PROVISION FOR JACKING 1½" MIN., 3½" MAX.
19. PAINT COLOR ANSI – 61 GREY

TRANSFORMER TESTS PER ANSI C57.12.90

TRANSFORMERS CONFORM TO NEMA & ANSI STANDARDS WHERE APPLICABLE

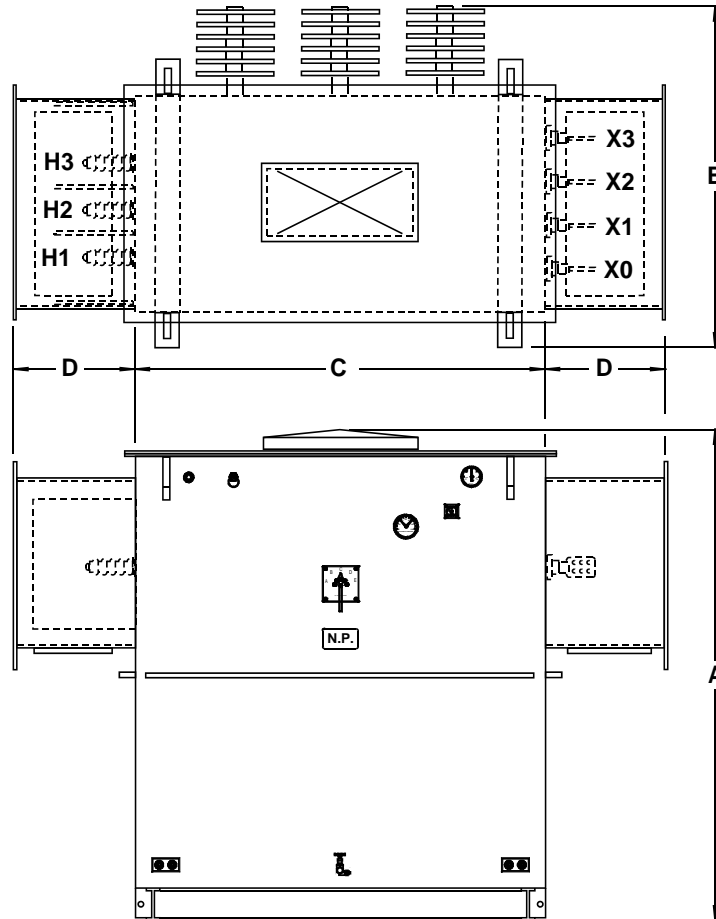
TRANSFORMERS SUPPLIED WITH STANDARD DISTRIBUTION ACCESSORIES PER ANSI C57.12. REFER TO FACTORY FOR SPECIAL FEATURES.

VANTRAN **WACO, TEXAS**
SUBSTATION TYPE TRANSFORMERS – MINERAL OIL FILLED
THREE PHASE ONAN 65°C RISE 60 HZ
125 KV BIL AND & BELOW

SECTION 19

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WEIGHTS & DIMENSIONS

<u>KVA</u>	<u>TOT. WT.</u>	<u>GAL OIL</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>
112½	2500	120	57	35	44	18
150	2600	115	57	35	44	18
225	3700	185	61	*38	50	18
300	4100	200	61	*39	50	18
500	5100	240	61	*49	52	18
750	6700	310	70	*49	56	18
1000	8200	390	77	*51	58	18
1500	10000	425	77	*55	64	18
2000	13000	480	83	*66	68	18
2500	15000	540	83	*70	74	18
3000	17000	610	83	*80	76	18
3750	20000	750	83	*80	84	20
5000	24000	840	88	*80	88	20

*DIMENSIONS INCLUDE RADIATORS (225 KVA AND LARGER)
 ABOVE 5000 KVA REFER TO FACTORY

STANDARD ACCESSORIES

1. RADIATORS (FLEXOPLATE) (AS REQUIRED) 300 KVA AND LARGER
2. WELDED ON COVER
3. BOLTED ON INSPECTION PLATE
4. THREE EACH HIGH VOLTAGE BUSHINGS WITH MECHANICAL EYEBOLT CONNECTORS IN HIGH VOLTAGE TERMINAL CHAMBER (GASKETED ACCESS PLATE IN BOTTOM OF TERMINAL CHAMBER
5. THREE EACH LOW VOLTAGE BUSHINGS WITH 4 OR 6 HOLE SPADE TERMINALS IN LOW VOLTAGE TERMINAL CHAMBER. ONE EACH LOW VOLTAGE NEUTRAL BUSHING WITH 4 OR 6 HOLE SPADE TERMINAL AND DETACHABLE GROUND STRAP (GASKETED ACCESS PLATE IN BOTTOM OF TERMINAL CHAMBER
6. LIFTING HOOKS (4 REQUIRED)
7. AUTOMATIC PRESSURE RELIEF VALVE
8. ONE INCH UPPER FILTER PRESS CONNECTION AND FILLER PLUG
9. PRESSURE – VACUUM GAUGE
10. LIQUID LEVEL GAUGE - MAGNETIC
11. DIAL TYPE THERMOMETER
12. EXTERNAL TAPCHANGER HANDLE (WITH PROVISIONS FOR PADLOCKING)
13. DIAGRAMMATIC CORROSION RESISTANT NAMEPLATE
14. TWO EACH TANK GROUND PADS, ONE ON BACK SIDE OF TANK
15. ONE INCH DRAIN VALVE AND FILTER PRESS CONNECTION
16. TRANSFORMER BASE WITH PROVISIONS FOR ROLLING
17. PER ASTM D-3487 TYPE II MINERAL OIL FILLED WITH LESS THAN 1 P.P.M. OF P.C.B. AT TIME OF MANUFACTURE
18. PROVISION FOR JACKING 1½” MIN., 3½” MAX.
19. PAINT COLOR ANSI – 61 GREY

TRANSFORMER TESTS PER ANSI C57.12.90

TRANSFORMERS CONFORM TO NEMA & ANSI STANDARDS WHERE APPLICABLE

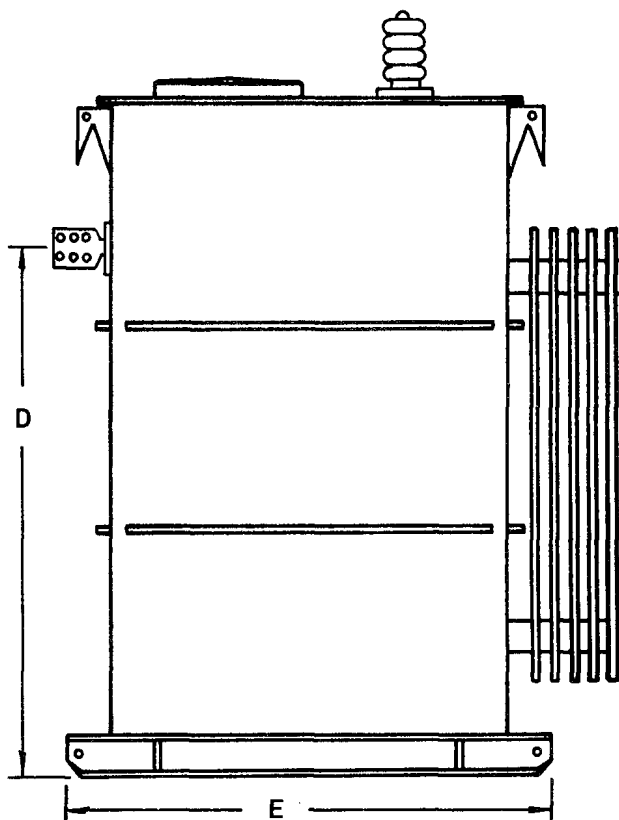
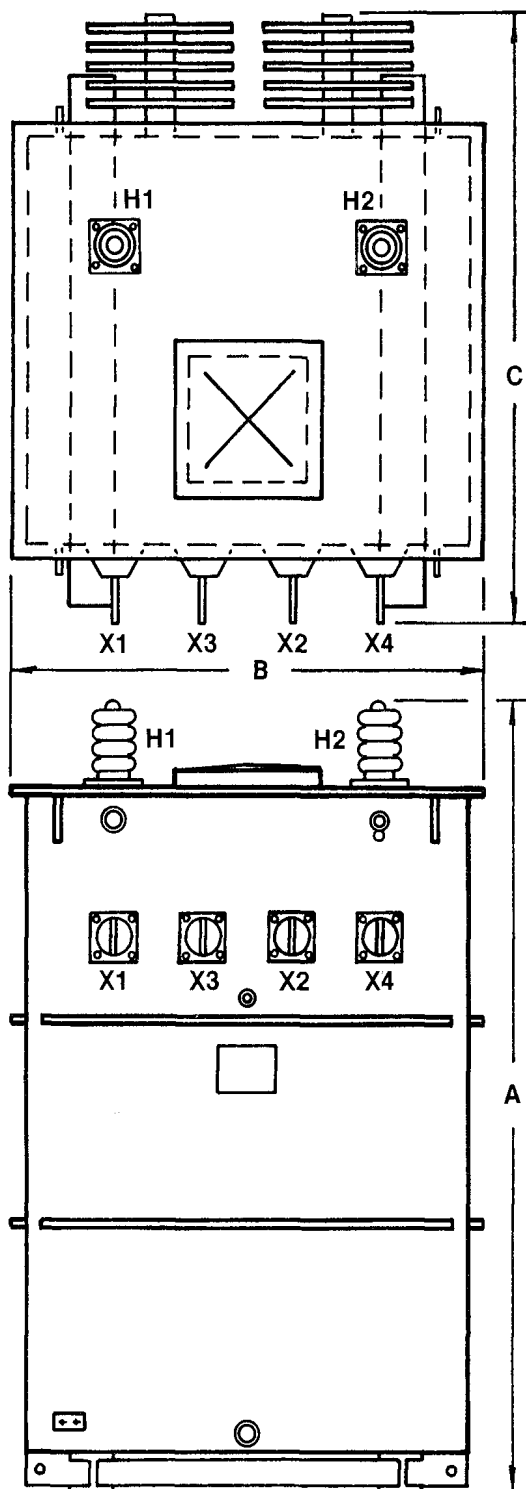
TRANSFORMERS SUPPLIED WITH STANDARD DISTRIBUTION ACCESSORIES PER ANSI C57.12. REFER TO FACTORY FOR SPECIAL FEATURES.

VANTRAN
STATION TYPE TRANSFORMERS – MINERAL OIL FILLED
SINGLE PHASE **OISC** **65°C RISE** **60 HZ**

SECTION 19

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WEIGHTS & DIMENSIONS

<u>KVA</u>	<u>T.W.</u>	<u>A</u>	<u>B</u>	<u>C</u>	<u>D</u>	<u>E</u>
500	3500	64	34	54	42	36
667	5600	76	42	62	52	56
750	6500	76	42	66	52	56
833	7500	76	42	70	52	56
1250	8800	76	42	74	52	56
1500	10000	92	44	77	64	61
1667	12000	92	44	84	64	61

TRANSFORMERS SUPPLIED WITH STANDARD
DISTRIBUTION ACCESSORIES PER ANSI
C57.12. REFER TO FACTORY FOR SPECIAL
FEATURES

TRANSFORMER TESTS PER ANSI C57.12.90

TRANSFORMERS CONFORM TO NEMA & ANSI STANDARDS WHERE APPLICABLE.

STANDARD ACCESSORIES

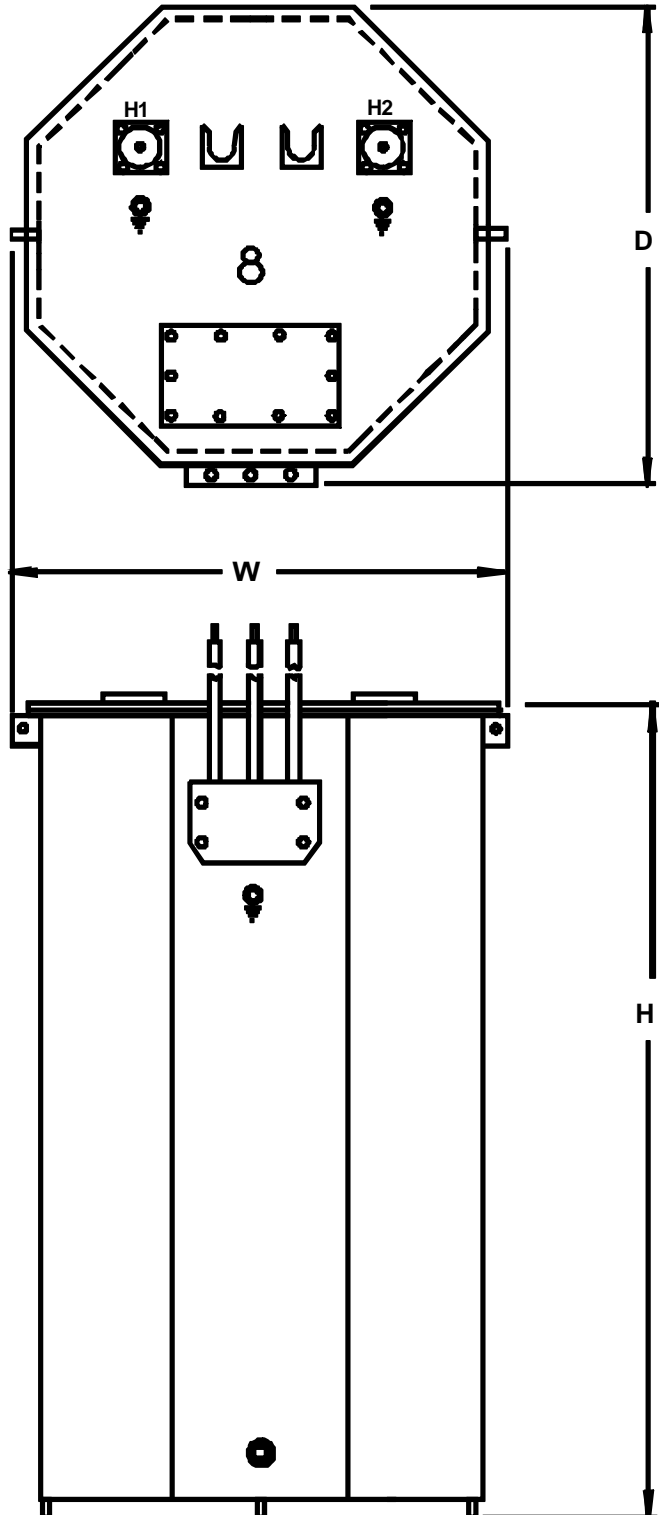
1. RADIATORS (FLEXOPLATE) (AS REQUIRED)
2. WELDED ON COVER
3. BOLTED ON INSPECTION PLATE
4. TWO EACH COVER MOUNTED HIGH VOLTAGE BUSHINGS WITH MECHANICAL EYEBOLT CONNECTORS
5. FOUR EACH LOW VOLTAGE BUSHINGS WITH 4 OR 6 HOLE SPADE TERMINALS
6. LIFTING HOOKS (4 REQUIRED)
7. AUTOMATIC PRESSURE RELIEF VALVE
8. ONE INCH UPPER FILTER PRESS CONNECTION AND FILLER PLUG
9. EXTERNAL TAPCHANGER HANDLE (WITH PROVISIONS FOR PADLOCKING)
10. DIAGRAMMATIC CORROSION RESISTANT NAMEPLATE
11. ONE INCH DRAIN PLUG
12. TANK GROUND PAD (1/2" – 13 TAP)
13. TRANSFORMER BASE WITH PROVISIONS FOR ROLLING
14. PROVISION FOR JACKING 1 1/2" MIN., 3 1/2" MAX.
15. PER ASTM D-3487 TYPE II MINERAL OIL FILLED WITH LESS THAN 1 P.P.M. OF P.C.B. AT TIME OF MANUFACTURE
16. BOTTOM OF TRANSFORMER UNDERCOATED TO PREVENT CORROSION
17. PROVISIONS FOR MOUNTING SURGE ARRESTERS
18. PAINT COLOR ANSI – 61 GREY

TRANSFORMER TESTS PER ANSI C57.12.90

TRANSFORMERS CONFORM TO NEMA & ANSI STANDARDS WHERE APPLICABLE

**TRANSFORMERS SUPPLIED WITH STANDARD DISTRIBUTION ACCESSORIES PER ANSI C57.12.
REFER TO FACTORY FOR SPECIAL FEATURES.**

95 KV BIL & BELOW



ROUTINE TESTS PER ANSI C57.12.90

1. RATIO
2. POLARITY & PHASE RELATIONS
3. EXCITATION LOSS
4. EXCITATION CURRENT
5. APPLIED POTENTIAL
6. INDUCED POTENTIAL
7. LOAD LOSS & IMPEDANCE
8. NO-LOAD LOSS

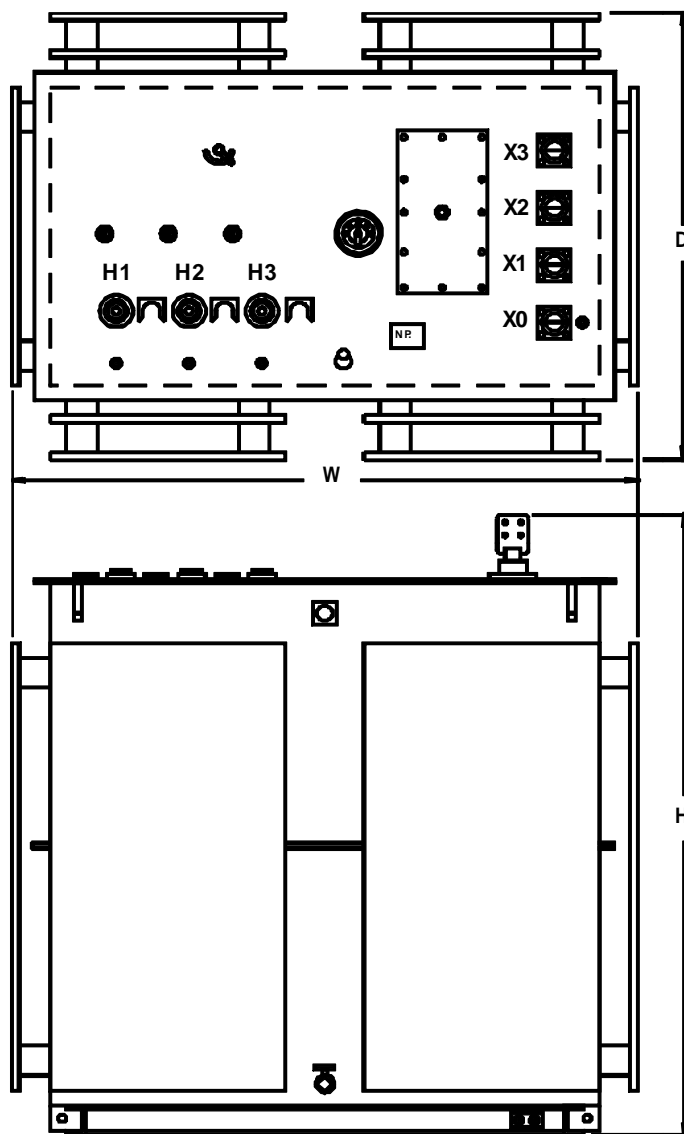
KVA RATING	MECHANICAL DATA		
	DIMENSIONS (APPROX. INCHES)		
	H	W	D
25	30	26	25
37½	40	26	25
50	40	26	25
75	50	28	27
100	50	28	27

TRANSFORMERS CONFORM TO NEMA & ANSI STANDARDS WHERE APPLICABLE

STANDARD ACCESSORIES

1. WELDED ON COVER
2. BOLTED ON INSPECTION PLATE
3. HIGH VOLTAGE BUSHING WELLS WELDED TO COVER
4. LOW VOLTAGE CABLE LEAD BUSHINGS
5. LIFTING LUGS (4EA. REQUIRED)
6. AUTOMATIC PRESSURE RELIEF VALVE
7. ONE INCH UPPER FILTER PRESS CONNECTION AND FILLER PLUG
8. DIAGRAMMATIC CORROSION RESISTANT NAMEPLATE
9. TANK GROUND BOSSES ($\frac{1}{2}$ "-13 TAPS)
10. ONE INCH DRAIN PLUG
11. TRANSFORMER BASE
12. MINERAL OIL FILLED
13. SPECIAL BLACK SUBMERSIBLE PAINT

95 KV BIL& BELOW



ROUTINE TESTS PER ANSI C57.12.90

1. RATIO
2. POLARITY & PHASE RELATIONS
3. EXCITATION LOSS
4. EXCITATION CURRENT
5. APPLIED POTENTIAL
6. INDUCED POTENTIAL
7. LOAD LOSS & IMPEDANCE
8. NO-LOAD LOSS

KVA RATING	MECHANICAL DATA		
	DIMENSIONS (APPROX. INCHES)		
	H	W	D
300	64	66	42
500	64	72	44
750	74	80	46
1000	76	86	52
1500	80	91	61

**TRANSFORMERS CONFORM TO NEMA & ANSI
 STANDARDS WHERE APPLICABLE**

REFER TO FACTORY FOR SPECIAL FEATURES

STANDARD ACCESSORIES

1. RADIATORS PANEL TYPE (AS REQUIRED)
2. WELDED ON COVER
3. BOLTED ON INSPECTION PLATE
4. THREE EACH HIGH VOLTAGE BUSHING WELLS WELDED TO COVER
5. FOUR EACH LOW VOLTAGE SPADE BUSHINGS COVER MOUNTED
6. LIFTING LUGS (4EA. REQUIRED)
7. AUTOMATIC PRESSURE RELIEF VALVE
8. ONE INCH UPPER FILTER PRESS CONNECTION AND FILLER PLUG
9. LIQUID LEVEL GAUGE
10. EXTERNAL TAPCHANGER HANDLE
11. DIAGRAMMATIC CORROSION RESISTANT NAMEPLATE
12. TWO EACH TANK GROUND PADS (½"-13 TAPS) ONE ON BACK SIDE OF TANK
13. ONE INCH DRAIN VALVE AND FILTER PRESS CONNECTION
14. TRANSFORMER BASE WITH PROVISIONS FOR ROLLING
15. MINERAL OIL FILLED
16. SPECIAL BLACK SUBMERSIBLE PAINT