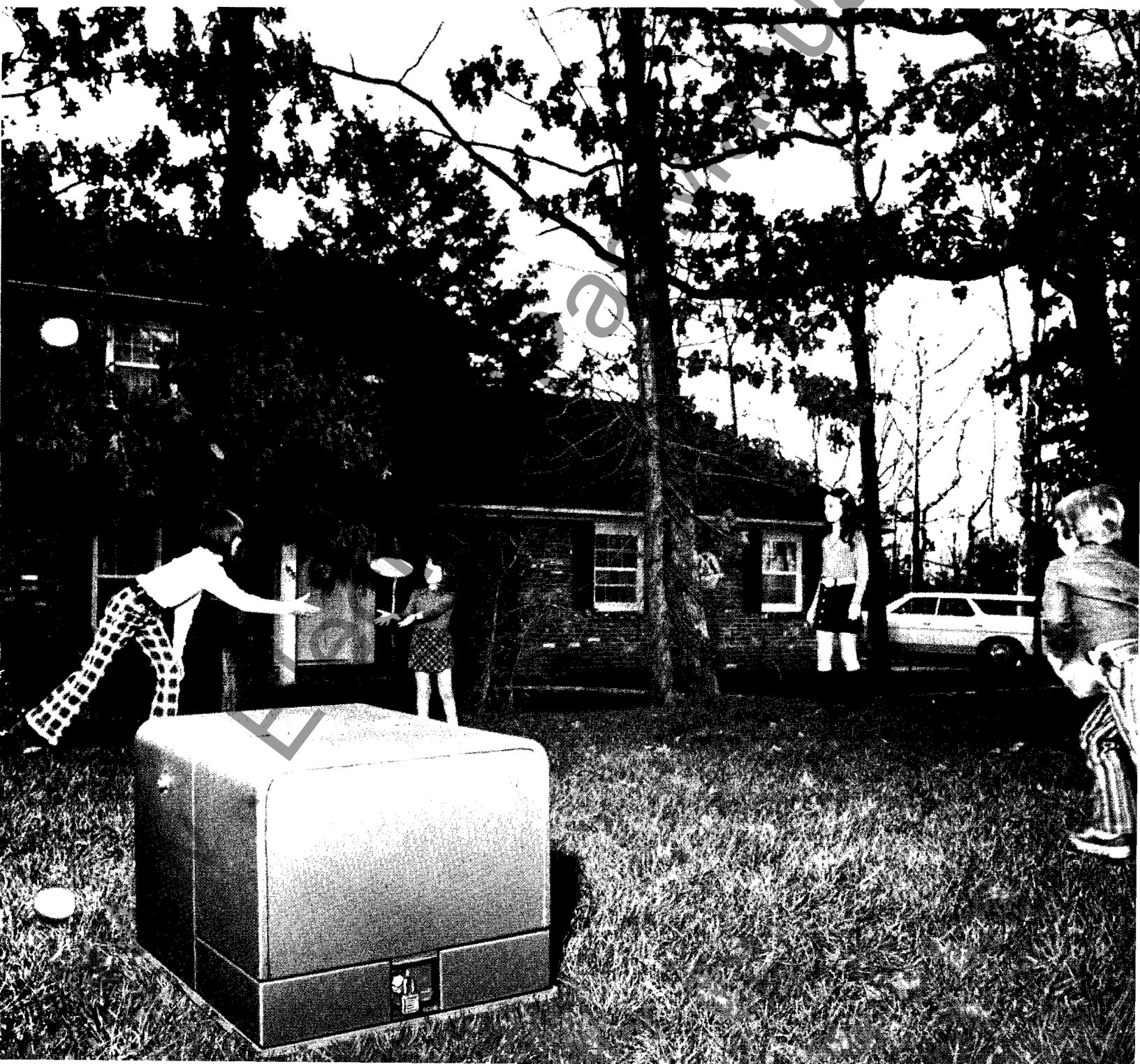
Westinghouse Electric Corporation
Distribution Transformer Division
Underground Distribution Transformer Dept.
Jefferson City, Missouri 65101

February, 1976
Supersedes 46-323 C WE A,
Pages 1-12, dated January 16, 1975
E, D, C/2062/PL, DB

Single-Phase, 25-167 KVA

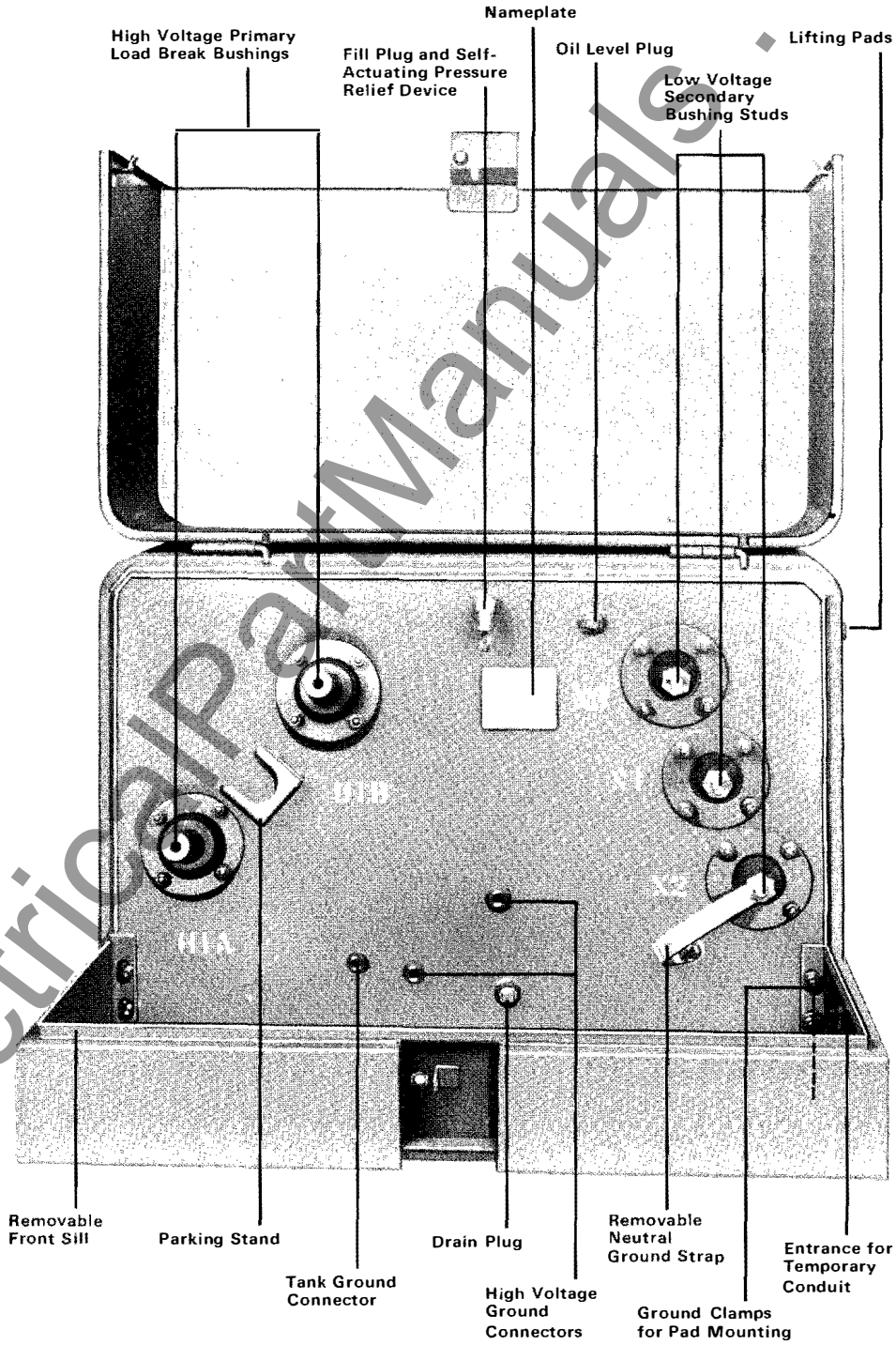
Mini-Pak Padmounted Distribution Transformer



In This Publication
This catalog combines complete descriptive information and prices on the Westinghouse Mini-Pak Padmounted Distribution Transformer. Prices are Eastern Zone List and are subject to Selling Policy 46-300 (See Page 9 for Pricing).

Application©
The Westinghouse Mini-Pak is a complete single-phase padmounted distribution transformer line readily adapted to any distribution system design. It is an oil-filled, 65°C rise unit which places a greater emphasis on aesthetics as well as safety for residential areas. With its contoured design and low profile (24" high for 25-100 KVA; 32" high for 167 KVA), it is less obtrusive than conventional, full-sized padmounted units. The engineering features and accessories of the Mini-Pak allow utilities to meet the requirements of any installation.

The Mini-Pak is designed for use on a Loop Feed Ground Wye distribution system. All units have a secondary voltage of 240/120. Units can be supplied with bushing wells only, or wells and ESNA® loadbreak or non-loadbreak inserts as primary termination. Secondary bushings are 4-hole square spades (ANSI, Figure 1), 4-hole in-line spades (ANSI, Figure 2) or studs only (ANSI, Figure 3). A self-actuating pressure relief device is standard on all Mini-Paks.



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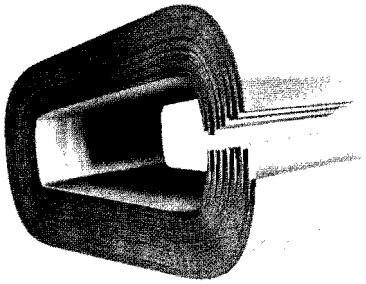
Standard Design Features
All Mini-Paks are equipped with the standard features shown on page 2. Highlighted below are the most important internal and external features:

WESCOR® Core



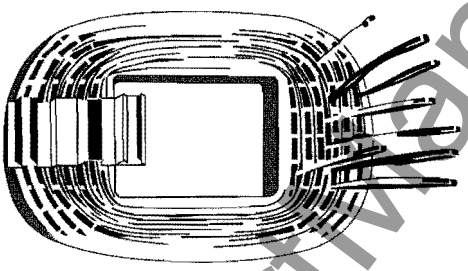
The patented WESCOR® core design combines the advantages of grain-oriented Hipersil steel and the exclusive step-lapped joint construction. This proven design minimizes core joint losses and lowers exciting current by reducing the reluctance of the magnetic flux path. WESCOR® construction also permits operation at lower sound levels, a result of lower reluctance and minimal mechanical stresses on the core.

An innovative Westinghouse-designed process combines in one machine the shearing, stacking and wrapping of the core laminations. After the annealing process, cores are automatically weighed, tested and graded on the basis of losses. Careful matching of cores assures the highest operating efficiency available, which means lower transformer operating costs.

Core shearing, stacking and wrapping.

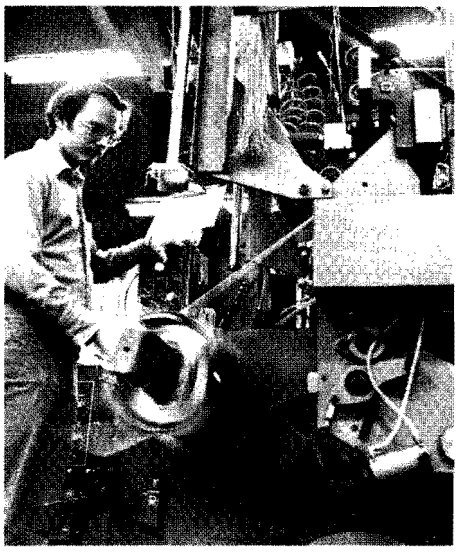
Insuldur® Insulation
High and low voltage windings are protected by the Westinghouse Insuldur® insulating system, which combines high temperature enamel-coated wire, an oil inhibitor, and chemically-treated cellulose paper. This system delays insulation deterioration, thereby extending transformer life and reducing costs, and increasing both continuous and peak load carrying capability.

Progressively Wound Coil



Introduced to the industry in 1959, the Westinghouse progressively wound coil is formed by winding the high voltage conductor directly on top of the inner low voltage section. The outer part of the low voltage section is wound directly on top of the high voltage winding. This design improves voltage regulation and its stronger mechanical construction reduces transformer failures due to short circuit forces.

The coils are wound in a clean room environment, on single head winding machines which allow more direct operator control. Stronger more uniform coils result from electronic spacing and counting plus automatic tension control. Secondary lead connectors are welded to sheet conductor rather than crimp-connected for more electrically sound connections.

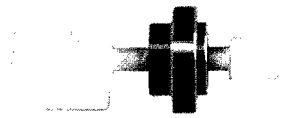


Single-head coil winder.

Primary Termination (HV)
Mini-Pak Transformers can be supplied with cast epoxy universal wells only, or with cast epoxy wells and ESNA loadbreak inserts. Wells are externally clamped, rather than welded, to the tankwall to allow external replacement.

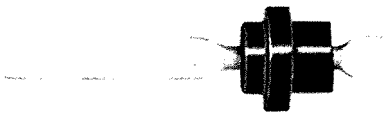
Universal bushing well

Secondary Termination (LV)
Mini-Pak Transformers can be supplied with 4-hole NEMA-type aluminum spades, 4-hole in-line aluminum spades, or threaded copper studs. Rotatable, tin-plated copper spades, both 4-hole in-line or 4-hole square, can also be supplied with the threaded copper stud bushing.



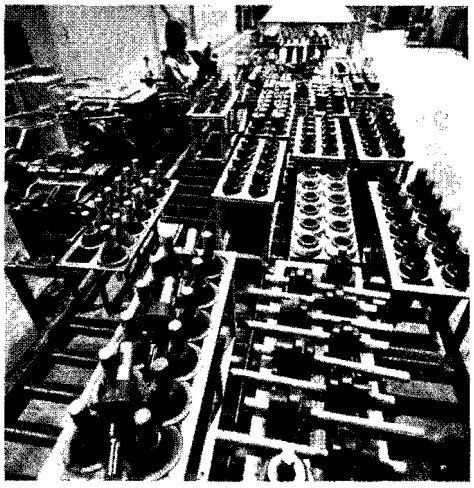
Square Spade

Threaded Stud



In-line Spade

Cast Epoxy Facility
An in-house epoxy facility in which all primary and secondary bushings are made, permits maximum flexibility in meeting customer termination needs.



Cast epoxy facility.

Mini-Pak's Accent on Safety®
(1) The CLT Fuse

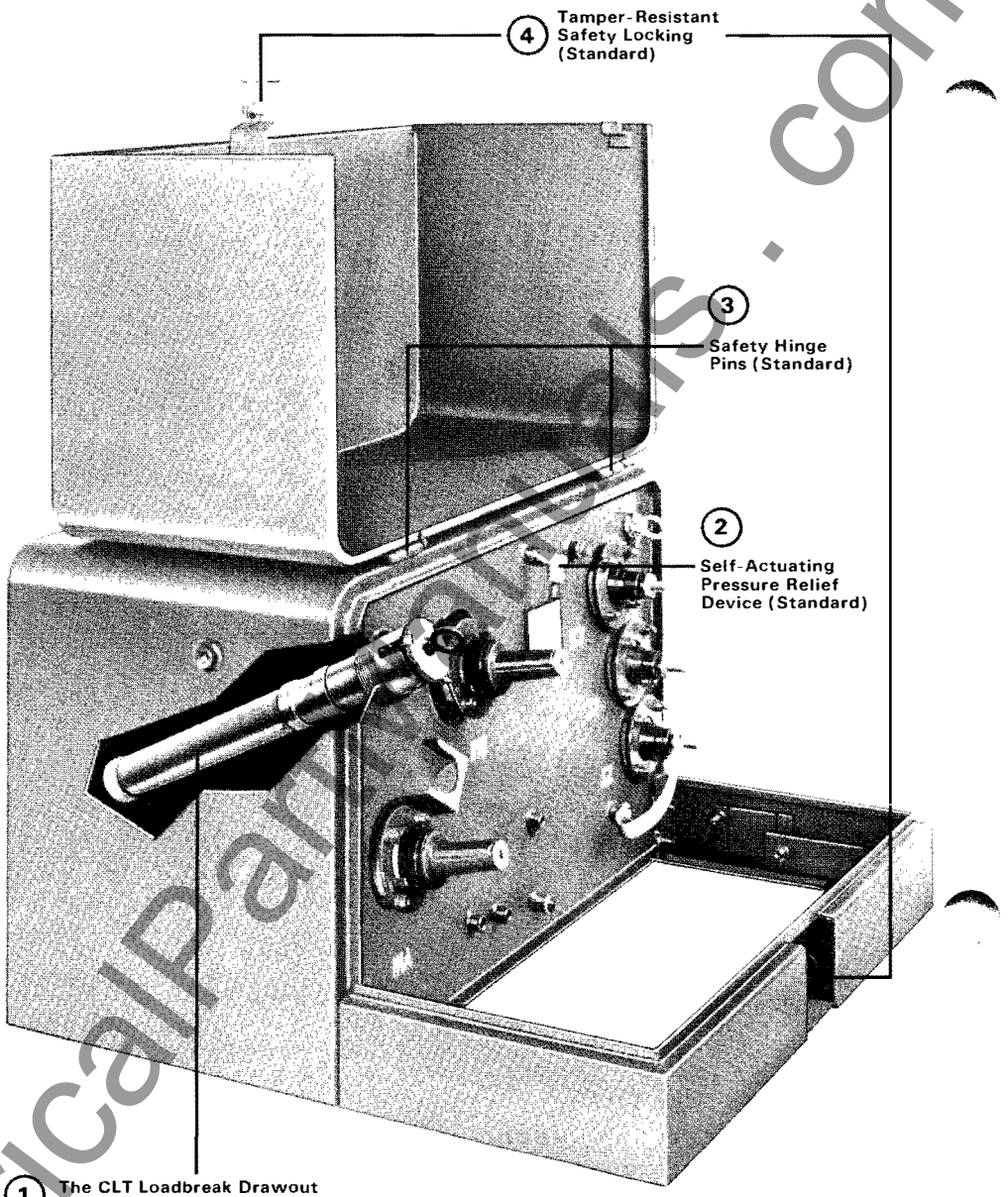
Among the most important safety-oriented accessories available on the Westinghouse Mini-Pak is the drawout loadbreak current limiting fuse (CLT).

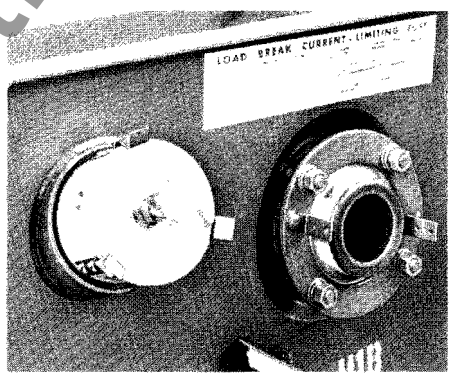
The Westinghouse CLT is a combination silver-sand current limiting fuse and a dry-well interrupter. It is made of a spiral of silver strip suspended in a quantity of special sand. The silver strip has numerous narrow points, each acting like separate fuses which melt in an overcurrent condition. An arc does originate, but the heat produced quickly changes the sand into glass. This extinguishes the arc almost before it generates, typically in less than half a cycle.

The CLT fuse is sealed in a tube assembly which isolates the fuse and loadbreak parts from the transformer insulating oil. The loadbreak parts are constructed similarly to a loadbreak elbow and insert combination, and are capable of breaking load ten times without replacement. This capability permits using the fuse as a high voltage disconnect, while at the same time permitting easy fuse replacement.

The fuse used in the CLT is a full-range design capable of interrupting current taking several seconds to melt the fuse element, as well as high energy fault current which is interrupted in less than half a cycle. The CLT can interrupt up to 25,000 amps symmetrical, 40,000 amps asymmetrical, 95 or 125 KV BIL.

Current limiting fuses are designed to limit and interrupt high energy low impedance faults – the types of faults which often result in internal dynamic pressure build up and can lead to tank rupture. Current limiting fuses help avoid the fault conditions which can cause dynamic pressure to build up. This is even more important with distribution systems becoming "stiffer," resulting in higher and higher available fault currents. Since conventional high voltage protective links can only interrupt up to 4,500 amperes symmetrical of fault current, more than 20 major utilities specify current limiting fuses on their distribution transformers.





The Westinghouse drawout CLT fuse is the only loadbreak device available from any manufacturer at 5 KV, 8.3 KV and 15 KV.

® Changed or added since previous issue.

CLT Assembly Drawout Ratings

	8.3 Kv	15 Kv
Momentary and Close-In	25,000 Amps RMS Sym.	25,000 Amps RMS Sym.
Impulse Withstand	95 Kv BIL	125 Kv BIL

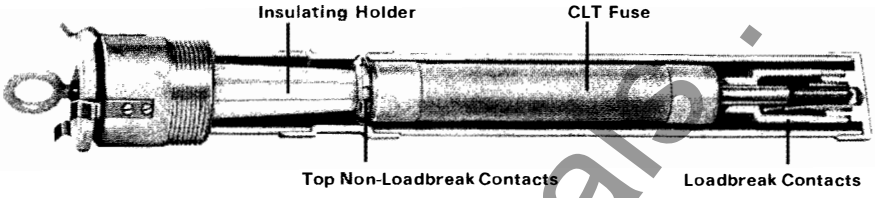
Loadbreak and continuous current ratings equal the fuse current rating selected from the listing below.

Available Fuses

A) 2400V—5, 12, 18, 25, 30, 75, 90, 150A
B) 4800V—8, 12, 18, 25, 30, 45, 60A
C) 7200V—5, 8, 12, 18, 25, 30, 45A
D) 14400V—4, 5, 8, 12, 18, 30A

Loadbreak Capability

The Westinghouse drawout CLT fuse is the only loadbreak device available from any manufacturer at 5 KV, 8.3 KV and 15 KV.



In summary, the **benefits** of the Westinghouse Mini-Pak equipped with a CLT fuse are:©

Safety. Limits and interrupts fault currents on circuits with up to 25,000 amps symmetrical.

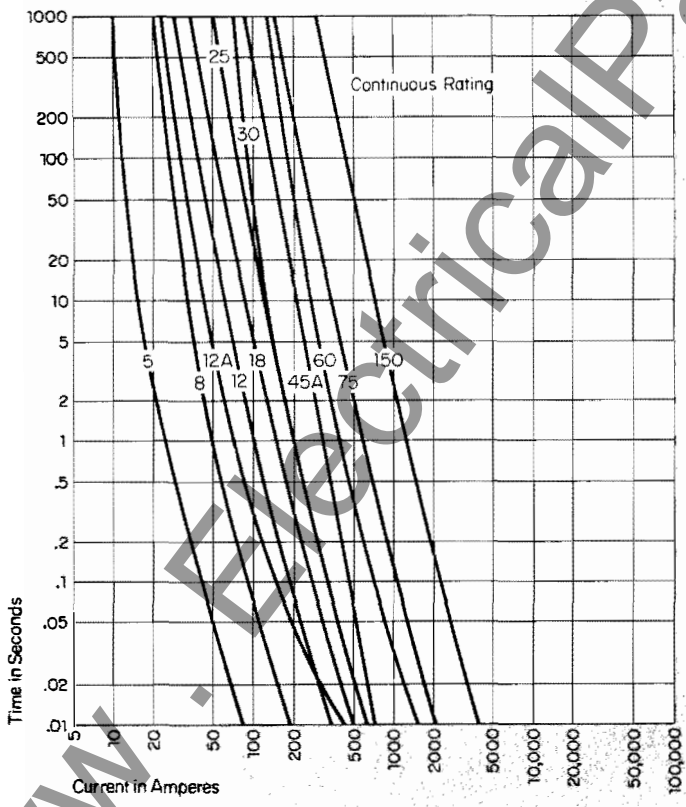
Hookstick operable, permitting operating personnel to break load.

Less costly. Separate loadbreak switch in series with a non-loadbreak current limiting fuse is not required on the Westinghouse Mini-Pak equipped with CLT as with competitive models. This saves $40 to $50 per unit and provides greater protection.

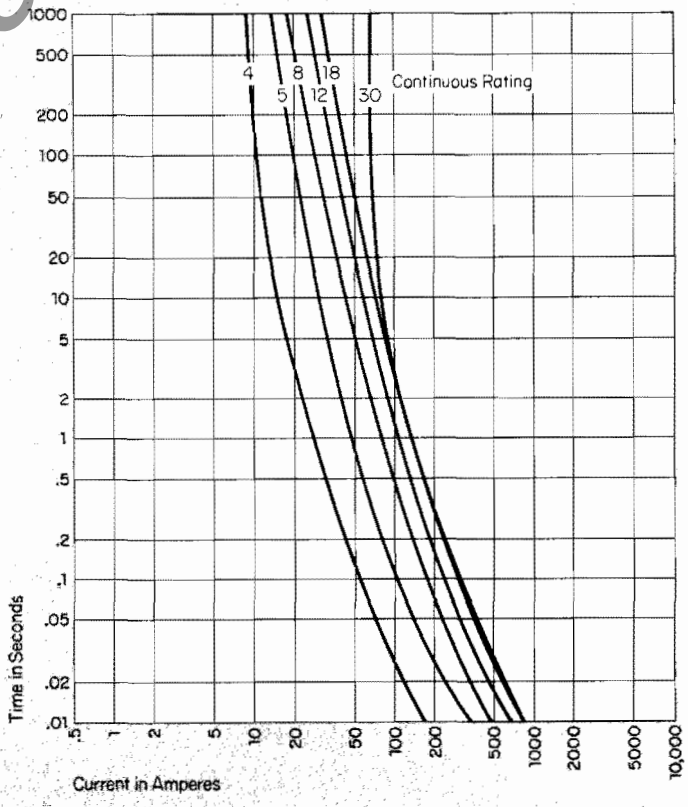
Completely sealed design is isolated from the insulating oil.

No oil spillage. The Westinghouse dry-well CLT design eliminates the problem of oil spewing from the tank as can occur with Bay-O-Net fuse assembly design.

Performance Curves



Melt-Time Current Characteristic Curves for CLT Current Limiting Fuses, 8 Kv Rating and Below.

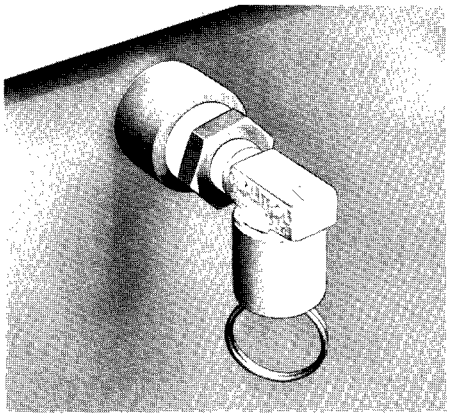


Melt-Time Current Characteristic Curves for CLT Current Limiting Fuses, 15 Kv Rating.

© Changed or added since previous issue.

Standard Safety Features

(2) Self-Actuating Pressure Relief Device⊙

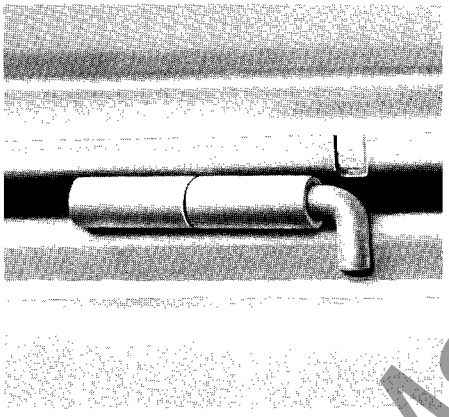


Supplied as a standard item on all Mini-Paks, the self-actuating pressure relief device relieves the **slow** pressure that can build up under extended overload, high ambient temperature, or incipient fault conditions. This device automatically vents **slow** pressure build-ups, which, if not relieved, could substantially weaken, or possibly rupture, the tank.

After automatically venting at between 5 and 7 psi, the device recloses when the pressure falls to between 3-4 psi. Retaining a slight positive internal pressure is helpful in keeping moisture from entering the tank.

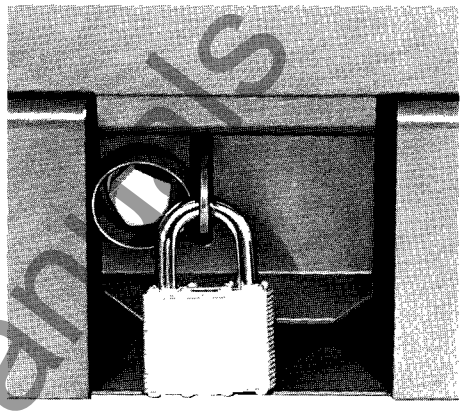
This device will **not** protect the transformer during sudden pressure build-ups resulting from high energy fault conditions.

(3) Safety Hinge Pins



Stainless steel safety hinge pins can be removed **only** with the terminal compartment cover in the fully-opened position. This virtually eliminates the possibility of the terminal compartment cover falling off into the HV and LV bushings during opening and closing.

(4) Tamper-Resistant Safety Locking



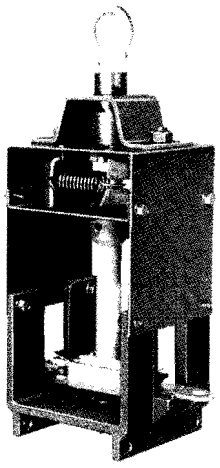
The combination of a recessed locking bolt and provision for padlocking discourage unauthorized persons from gaining access to the terminal compartment.

When REA designed U-5 is specified, a recessed pentahead bolt as shown above is substituted for the standard hexahead bolt.

⊙ Changed or added since previous issue.

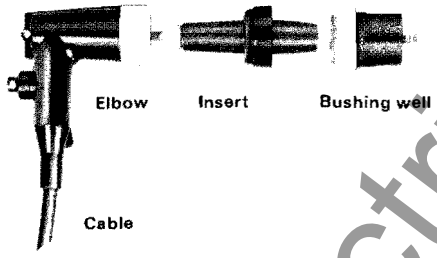
Switching and Protective Devices

LBOR Switch



The Westinghouse loadbreak oil rotary switch (LBOR) is specifically designed for underground and padmount transformers. It provides internal oil switching for loop feed. The LBOR enables a utility operating man to quickly isolate a line fault in a loop feed system, while maintaining full service continuity. Switches are available in 200 amp and 300 amp loadbreak ratings.

Loadbreak Insert.



All Mini-Pak transformers are supplied with universal bushing wells. Loadbreak inserts (ESNA®) can be supplied when required. Switching can be performed by using a hook stick and loadbreak elbows. Elbows, inserts and wells are all rated 200 amperes, 95 or 125 KV BIL.

Secondary Breaker

This protective device, developed specifically for operating under oil on the secondary side of a distribution transformer, features a thermal trip to prevent transformer damage due to secondary overloads or short circuits.

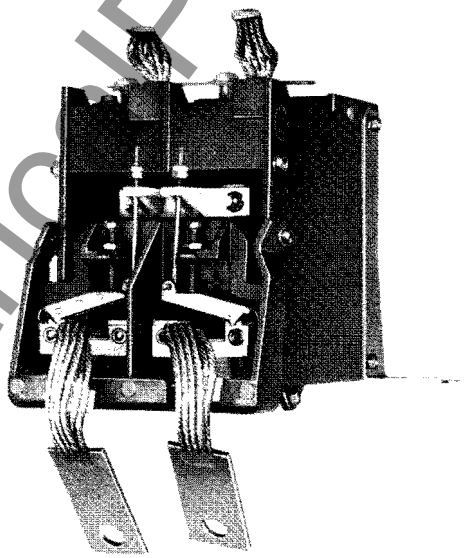
An internal protective link is supplied on the primary side of the coil when a secondary breaker is specified.

An LR breaker is supplied on 25 Kva units and a QR breaker is supplied on units 37½ – 100 Kva.

The LR breaker has an interrupting rating of 10,000 amperes.

The QR breaker features both a thermal trip and a magnetic trip. The instantaneous response of the magnetic trip protects the transformer from a failure due to high magnitude, low impedance faults. The QR breaker has an interrupting rating of 45,000 amperes.

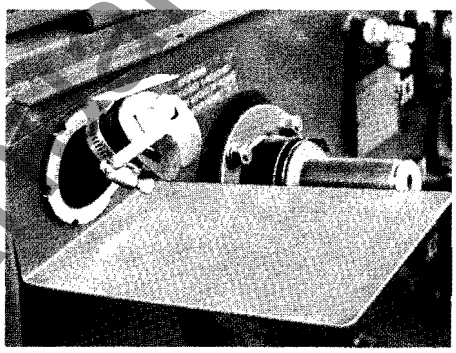
An external operating handle for emergency control is located on the terminal compartment tankwall next to the breaker control handle. The emergency control is supplied as standard.



Primary Protective Link. This is a fusing device designed to remove the unit from the distribution feeder circuit to prevent line lockout **only** in the event of an extreme internal transformer failure. The fusing characteristics of the protective link are such that all secondary faults and overloads are cleared by the secondary breaker and the link is coordinated with the breaker to operate only when an internal failure occurs.

The protective link is an oil-immersed, explusion-type fuse which is mounted in, and connected in series to, the HIB High Voltage bushing. It is externally replaceable on all except dual voltage and LBOR-equipped units by removing the externally-clamped bushing.

Interrupting ratings range from 2400 through 15,000 volts depending on system voltage and transformer tank design.



Bay-O-Net Fuse. This externally-removable, oil-immersed Bay-O-Net fuse link has an interrupting rating of 4,500 amps at 8.3 KV. Two types of fuse links are available: Overload-sensing or fault-sensing. An isolation link is supplied in series with the removable link. The isolation link is not externally replaceable. An oil drip plate is provided to keep oil from dripping onto the high voltage terminations during withdrawal of the Bay-O-Net.

® Trademark of Amerace-ESNA Corp

Jefferson City Paint Finish System:
Second to None

Any paint finishing system is designed to prevent oxidation of the substrate material. The Westinghouse Jefferson City system is clearly superior because of an innovative electro-coating process, one of four basic steps in the Westinghouse paint finish system.

Preparation. After fabrication, all tank and cabinet parts begin a nine-stage preparation phase. The process includes two alkaline solution washes, each followed by a rinse, a zinc phosphate rust inhibitor spray and wash, a deionized water rinse, blow-off and finally oven drying at 250°F.

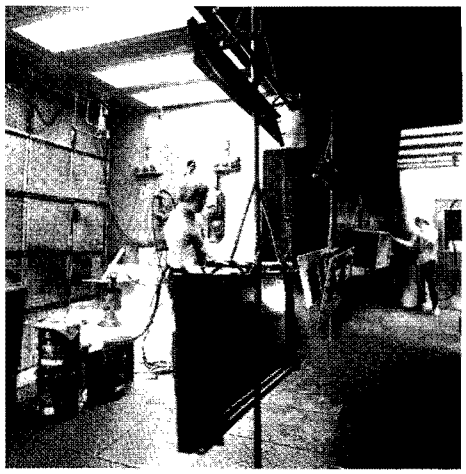
Primer bath. The tank pieces then move through the 12,000-gallon electrocoating bath, where they are primed with a 1 mil thickness of epoxy resin crosslinked with melamine and the most expensive white pigment available. The pieces are positively grounded while the zinc-rich primer is negatively charged, resulting in a uniform coating over the entire surface. The Westinghouse electrocoating process – an industry exclusive – is the most thorough method of applying primer to irregular metal surfaces.

Intermediate spray. After a 20-minute baking cycle, a 1 mil thick acrylic coating, containing rust inhibitive pigments, is applied. This coating is again baked for 20 minutes. Tank bases also receive an undercoating of 10 mils of a mastic material for added resistance to scraping.

Final spray. After final assembly, there is a last solvent cleaning and masking, followed by final application of 1 mil of alkyd finish reinforced with polypropylene. After a 20-minute curing, the paint finish process is completed.

Painstaking Preparation. First stage of the nine stage preparation phase is cleaning and degreasing with an alkaline wash rather than shot blasting.

Primer Bath: Industry Exclusive. Positively-grounded metal pieces are submersed in the negatively-charged primer bath, depositing a uniform coating over all irregular surfaces.



Intermediate Spray. Airless, electrostatic spray guns deposit a 1 mil thick acrylic coating containing rust inhibitive pigments.

Pricing①②

The following prices cover single-phase Mini-Pak, oil-filled, 65°C rise, padmounted distribution transformers. Price List tables are arranged according to the type of protection. All prices are Eastern Zone list and are subject to Selling Policy 46-300.

Pricing Procedure

1. Select appropriate Price Table according to the type of protection desired (Table A)

2. Select Low Voltage Termination from first column of Price Table. Penta-head locking bolt and threaded stud secondary bushings are available on all designs to meet REA standards and are designated in the Low Voltage Termination column of Price Table.

3. Select KVA from second column of Price Table.

4. Select High Voltage Termination from the "Wells Only" or "Wells and ESNA Loadbreak Inserts" sections of Price Table, and record corresponding style number.

5. For single high voltages, complete the style number after selecting the appropriate Single High Voltage Designation (Table B).

6. For multiple high voltages, complete the style number and record the dollar adder after selecting the appropriate Multiple High Voltage Designation (Table C).

7. Select the appropriate High Voltage column of Price Table (either 4160 Grd. Y – 13800 Grd. Y; or 20000 Grd. Y – 24940 Grd. Y).

8. Select the appropriate "No Taps" or "Taps" column of Price Table and read corresponding List Price.

TableA: Type of Protection (Optional Accessories)

1. Protective Link Only . . . . . Price Table 1
2. Protective Link and Secondary Breaker . . . . . Price Table 2
3. Westinghouse Drawout Loadbreak Current Limiting Fuse . . . . . Price Table 3
4. Bay-O-Net (Overload Sensing) . . . . . Price Table 4

Table B:
Single High Voltage Designation

High Voltage	Designation, Field 2, 3		
	No Taps	Four 2½% Below	±Two 2½%
95 KV BIL and Below, Single High Voltage			
4160 GrdY/2400	23	24	25
8320 GrdY/4800	47	48	49
12000 GrdY/6930	68		
12470 GrdY/7200	71	72	73
13200 GrdY/7620	75	76	77
13800 GrdY/7970	79	80	81
125 KV BIL and Below, Single High Voltage			
20000 GrdY/11400	60		
20780 GrdY/12000	08	09	10
22900 GrdY/13200	35	36	37
23900 GrdY/13800	38	38	39④
24940 GrdY/14400	14	17③	19

③ Taps at 13800-13200-12870-12540
④ Taps at 14400-14100-13500-13200

Note For Dual High Voltage, See Page 4

Table C:
Multiple High Voltage Designation, Adder

	Designation, Field 2, 3	List Adder For All KVA
4160 Grd Y/2400 X 12470 Grd Y/7200	B1	$75
4160 Grd Y/2400 X 13200 Grd Y/7620	C1	90
4160 Grd Y/2400 X 13800 GrdY/7970	D1	90
12470 Grd Y/7200 X 24940 Grd Y/14400	H3	75⑤
13200 Grd Y/7620 X 22860 Grd Y/13200	F4	90⑤
12470 Grd Y/7200 X 22860 Grd Y/13200 X 24940 Grd Y/14400	H7	90⑤
12470 Grd Y/7200 X 23860 Grd Y/13800 X 24940 Grd Y/14400	H8	90⑤

⑤ To be added to 20000 Grd Y – 24940 Grd Y List Price

① Prices are effective December 16, 1973 and are subject to change without notice. For standard terms and conditions of sale, refer to Selling Policy 46-300
② All prices are for Single High Voltages. Refer to Table C above for Multiple High Voltage Designations and Adders

Style Number Identification

The style numbers are composed in the following manner:

Field 1 | 2, 3 | 4 | 5 | 6 | 7 | 8 | 9, 10

L | 71 | B | 3 | E | A | 1 | AA

Padmounted Designation
L = 25-100 KVA 24 inches high
M = 167 KVA 32 inches high

High Voltage
Taps
Dual Voltage
(See Tables B or C)

Primary Feed
B = Loop
N = Radial

KVA
1 25 KVA
2 37½ KVA
3 50 KVA
4 75 KVA
5 100 KVA
6 167 KVA

Protection
B = Internal protective link link and secondary breaker
E = Westinghouse drawout loadbreak current limiting fuse
L = Internal Link Only
Y = Bay-O-Net fault sensing fuse
X = Bay-O-Net overload sensing fuse

HV Termination
A = Wells only
B = Wells & ESNA loadbreak inserts

LV Termination
1 = 4-hole in-line spades
2 = 4-hole NEMA spades
3 = stud with 4-hole
4 = stud with 4-hole in-line spades
5 = studs with 4-hole NEMA spades

Accessories
AA = Standard
AB = Pentahead Bolt

Example

Style No. L71B3EA1AA
This describes a single phase Mini-Pak Type S with a Westinghouse drawout current limiting fuse and self-actuating pressure relief device. The low voltage termination is 4-hole in-line spades and the KVA is 50. The insulation level is 95 KV BIL with wells only and the high voltage is 12470 Grd. Y/7200 without taps. The list price is **$692.**

Table 1: Protective Link Only

Low Voltage Termination	KVA	Wells Only					Wells and ESNA③ Loadbreak Inserts				
		Style	4160 Grd Y-① 13800 Grd Y		20000 Grd Y-② 24940 Grd Y		Style	4160 Grd Y-① 13800 Grd Y		20000 Grd Y-② 24940 Grd Y	
			No Taps	w/ ±2-2½% or −4-2½% Taps	No Taps	w/ ±2-2½% or −4-2½% Taps		No Taps	w/ ±2-2½% or −4-2½% Taps	No Taps	w/ ±2-2½% or −4-2½% Taps
4-Hole NEMA Spades	25	L – –B1LA2AA	$ 536	$ 571	$ 571	$ 606	L – –B1LB2AA	$ 586	$ 621	$ 671	$ 706
	37½	L – –B2LA2AA	567	616	602	651	L – –B2LB2AA	617	666	702	751
	50	L – –B3LA2AA	615	672	650	707	L – –B3LB2AA	665	722	750	807
	75	L – –B4LA2AA	850	935	885	970	L – –B4LB2AA	900	985	985	1070
	100	L – –B5LA2AA	973	1074	1008	1109	L – –B5LB2AA	1023	1124	1108	1209
	167	M – –B6LA2AA	1293	1403	1328	1438	M – –B6LB2AA	1343	1453	1428	1538
4-Hole In-Line Spades	25	L – –B1LA1AA	536	571	571	606	L – –B1LB1AA	586	621	671	706
	37½	L – –B2LA1AA	567	616	602	651	L – –B2LB1AA	617	666	702	751
	50	L – –B3LA1AA	615	672	650	707	L – –B3LB1AA	665	722	750	807
	75	L – –B4LA1AA	850	935	885	970	L – –B4LB1AA	900	985	985	1070
	100	L – –B5LA1AA	973	1074	1008	1109	L – –B5LB1AA	1023	1124	1108	1209
	167	M – –B6LA1AA	1293	1403	1328	1438	M – –B6LB1AA	1343	1453	1428	1538
Threaded Copper Studs ⅝"-11" 25-75 KVA 1"-14" 100 & 167 KVA	25	L – –B1LA3AA	536	571	571	606	L – –B1LB3AA	586	621	671	706
	37½	L – –B2LA3AA	567	616	602	651	L – –B2LB3AA	617	666	702	751
	50	L – –B3LA3AA	615	672	650	707	L – –B3LB3AA	665	722	750	807
	75	L – –B4LA3AA	850	935	885	970	L – –B4LB3AA	900	985	985	1070
	100	L – –B5LA3AA	973	1074	1008	1109	L – –B5LB3AA	1023	1124	1108	1209
	167	M – –B6LA3AA	1293	1403	1328	1438	M – –B6LB3AA	1343	1453	1428	1538
Threaded Copper Studs Same As Above REA Design (Also Include Penta-Head Locking Bolt	25	L – –B1LA3AB	536	571	571	606	L – –B1LB3AB	586	621	671	706
	37½	L – –B2LA3AB	567	616	602	651	L – –B2LB3AB	617	666	702	751
	50	L – –B3LA3AB	615	672	650	707	L – –B3LB3AB	665	722	750	807
	75	L – –B4LA3AB	850	935	885	970	L – –B4LB3AB	900	985	985	1070
	100	L – –B5LA3AB	973	1074	1008	1109	L – –B5LB3AB	1023	1124	1108	1209
	167	M – –B6LA3AB	1293	1403	1328	1438	M – –B6LB3AB	1343	1453	1428	1538

Table 2: Protective Link and Secondary Breaker

Low Voltage Termination	KVA	Wells Only					Wells and ESNA③ Loadbreak Inserts				
		Style	4160 Grd Y-① 13800 Grd Y		20000 Grd Y-② 24940 Grd Y		Style	4160 Grd Y-① 13800 Grd Y		20000 Grd Y-② 24940 Grd Y	
			No Taps	w/ ±2-2½% or −4-2½% Taps	No Taps	w/ ±2-2½% or −4-2½% Taps		No Taps	w/ ±2-2½% or −4-2½% Taps	No Taps	w/ ±2-2½% or −4-2½% Taps
4-Hole NEMA Spades	25	L – –B1BA2AA	557	592	592	627	L – –B1BB2AA	607	642	692	727
	37½	L – –B2BA2AA	611	660	646	695	L – –B2BB2AA	661	710	746	795
	50	L – –B3BA2AA	659	716	694	751	L – –B3BB2AA	709	766	794	851
	75	L – –B4BA2AA	894	979	929	1014	L – –B4BB2AA	944	1029	1029	1114
	100	L – –B5BA2AA	1064	1165	1099	1200	L – –B5BB2AA	1114	1215	1199	1300
	167	Not Available	....	....	....	....	Not Available	....	....	....	....
4-Hole In-Line Spades	25	L – –B1BA1AA	557	592	592	627	L – –B1BB1AA	607	642	692	727
	37½	L – –B2BA1AA	611	660	646	695	L – –B2BB1AA	661	710	746	795
	50	L – –B3BA1AA	659	716	694	751	L – –B3BB1AA	709	766	794	851
	75	L – –B4BA1AA	894	979	929	1014	L – –B4BB1AA	944	1029	1029	1114
	100	L – –B5BA1AA	1064	1156	1099	1200	L – –B5BB1AA	1114	1215	1199	1300
	167	Not Available	....	....	....	....	Not Available	....	....	....	....
Threaded Copper Studs ⅝"-11" 25-75 KVA 1"-14" 100 & 167 KVA	25	L – –B1BA3AA	557	592	592	627	L – –B1BB3AA	607	642	692	727
	37½	L – –B2BA3AA	611	660	646	695	L – –B2BB3AA	661	710	746	795
	50	L – –B3BA3AA	659	716	694	751	L – –B3BB3AA	709	766	794	851
	75	L – –B4BA3AA	894	979	929	1014	L – –B4BB3AA	944	1029	1029	1114
	100	L – –B5BA3AA	1064	1165	1099	1200	L – –B5BB3AA	1114	1215	1199	1300
	167	Not Available	....	....	....	....	Not Available	....	....	....	....
Threaded Copper Studs Same As Above REA Design (Also Include Penta-Head Locking Bolt)	25	L – –B1BA3AB	557	592	592	627	L – –B1BB3AB	607	642	692	727
	37½	L – –B2BA3AB	611	660	646	695	L – –B2BB3AB	661	710	746	795
	50	L – –B3BA3AB	659	716	694	751	L – –B3BB3AB	709	766	794	851
	75	L – –B4BA3AB	894	979	929	1014	L – –B4BB3AB	944	1029	1029	1114
	100	L – –B5BA3AB	1064	1165	1099	1200	L – –B5BB3AB	1114	1215	1199	1300
	167	Not Available	....	....	....	....	Not Available	....	....	....	....

① Single high voltage, 95 KV BIL and below. See Table B, Page 9 for style number designations. For multiple high voltage style number designations, see Table C, Page 9.

② Single high voltage, 125 KV BIL and below. See Table B. Page 9 for style number designations. For multiple high voltage style number designations, see Table C, Page 9.

③ Trademark of Amerace – ESNA Corp.

Table 3: Westinghouse Drawout Loadbreak Current Limiting Fuse

Low Voltage Termination	KVA	Wells Only					Wells and ESNA③ Loadbreak Inserts				
		Style	4160 Grd Y-① 13800 Grd Y		20000 Grd Y-② 24940 Grd Y		Style	4160 Grd Y-① 13800 Grd Y		20000 Grd Y-② 24940 Grd Y	
			No Taps	w/ ±2-2½% or −4-2½% Taps	No Taps	w/ ±2-2½% or −4-2½% Taps		No Taps	w/ ±2-2½% or −4-2½% Taps	No Taps	w/ ±2-2½% or −4-2½% Taps
4-Hole NEMA Spades	25	L – – B1EA2AA	$ 613	$ 648	$ 678	$ 713	L – – B1EB2AA	$ 663	$ 698	$ 778	$ 813
	37½	L – – B2EA2AA	644	693	709	758	L – – B2EB2AA	694	743	809	858
	50	L – – B3EA2AA	692	749	757	814	L – – B3EB2AA	742	799	857	914
	75	L – – B4EA2AA	927	1012	992	1077	L – – B4EB2AA	977	1062	1092	1177
	100	L – – B5EA2AA	1050	1151	1115	1216	L – – B5EB2AA	1100	1201	1215	1316
	167	M – – B6EA2AA	1370	1480	1435	1545	M – – B6EB2AA	1420	1530	1535	1645
4-Hole In-Line Spades	25	L – – B1EA1AA	613	648	678	713	L – – B1EB1AA	662	698	778	813
	37½	L – – B2EA1AA	644	693	709	758	L – – B2EB1AA	694	743	809	858
	50	L – – B3EA1AA	692	749	757	814	L – – B3EB1AA	742	799	857	914
	75	L – – B4EA1AA	927	1012	992	1077	L – – B4EB1AA	977	1062	1092	1177
	100	L – – B5EA1AA	1050	1151	1115	1216	L – – B6EB1AA	1100	1201	1215	1316
	167	M – – B6EA1AA	1370	1480	1435	1545	M – – B6EB1AA	1420	1530	1535	1645
Threaded Copper Studs ⅝"-11" 25-75 KVA 1"-14" 100 & 167 KVA	25	L – – B1EA3AA	613	648	678	713	L – – B1EB3AA	662	698	778	813
	37½	L – – B2EA3AA	644	693	709	758	L – – B2EB3AA	694	743	809	858
	50	L – – B3EA3AA	692	749	757	814	L – – B3EB3AA	742	799	857	914
	75	L – – B4EA3AA	927	1012	992	1077	L – – B4EB3AA	977	1062	1092	1177
	100	L – – B5EA3AA	1050	1151	1115	1216	L – – B5EB3AA	1100	1201	1215	1316
	167	M – – B6EA3AA	1370	1480	1435	1545	M – – B6EB3AA	1420	1530	1535	1645
Threaded Copper Studs Same As Above REA Design (Also Include Penta-Head Locking Bolt)	25	L – – B1EA3AB	613	648	678	713	L – – B1EB3AB	662	698	778	813
	37½	L – – B2EA3AB	644	693	709	758	L – – B2EB3AB	694	743	809	858
	50	L – – B3EA3AB	692	749	757	814	L – – B3EB3AB	742	799	857	914
	75	L – – B4EA3AB	927	1012	992	1077	L – – B4EB3AB	977	1062	1092	1177
	100	L – – B5EA3AB	1050	1151	1115	1216	L – – B5EB3AB	1100	1201	1215	1316
	167	M – – B6EA3AB	1370	1480	1435	1545	M – – B6EB3AB	1420	1530	1535	1645

Table 4: Bay-O-Net (Overload Sensing)

Low Voltage Termination	KVA	Wells Only					Wells and ESNA③ Loadbreak Inserts				
		Style	4160 Grd Y-① 13800 Grd Y		20000 Grd Y-② 24940 Grd Y		Style	4160 Grd Y-① 13800 Grd Y		20000 Grd Y-② 24940 Grd Y	
			No Taps	w/ ±2-2½% or −4-2½% Taps	No Taps	w/ ±2-2½% or −4-2½% Taps		No Taps	w/ ±2-2½% or −4-2½% Taps	No Taps	w/ ±2-2½% or −4-2½% Taps
4-Hole NEMA Spades	25	L – – B1XA2AA	568	603	603	638	L – – B1XB2AA	618	653	703	738
	37½	L – – B2XA2AA	599	648	634	683	L – – B2XB2AA	649	698	734	783
	50	L – – B3XA2AA	647	704	682	739	L – – B3XB2AA	697	754	782	839
	75	L – – B4XA2AA	882	967	917	1002	L – – B4XB2AA	932	1017	1017	1102
	100	L – – B5XA2AA	1005	1106	1040	1141	L – – B5XB2AA	1055	1156	1140	1241
	167	M – – B6XA2AA	1325	1435	1360	1470	M – – B6XB2AA	1375	1485	1460	1470
4-Hole In-Line Spades	25	L – – B1XA1AA	568	603	603	638	L – – B1XB1AA	618	653	703	738
	37½	L – – B2XA1AA	599	648	634	683	L – – B2XB1AA	649	698	734	783
	50	L – – B3XA1AA	647	704	682	739	L – – B3XB1AA	697	754	782	839
	75	L – – B4XA1AA	882	967	917	1002	L – – B4XB1AA	932	1017	1017	1102
	100	L – – B5XA1AA	1005	1106	1040	1141	L – – B5XB1AA	1055	1156	1140	1241
	167	M – – B6XA1AA	1325	1435	1360	1470	M – – B6XB1AA	1375	1485	1460	1470
Threaded Copper Studs ⅝"-11" 25-75 KVA 1"-14" 100 & 167 KVA	25	L – – B1XA3AA	568	603	603	638	L – – B1XB3AA	618	653	703	738
	37½	L – – B2XA3AA	599	648	634	683	L – – B2XB3AA	649	698	734	783
	50	L – – B3XA3AA	647	704	682	739	L – – B3XB3AA	697	754	782	839
	75	L – – B4XA3AA	882	967	917	1002	L – – B4XB3AA	932	1017	1017	1102
	100	L – – B5XA3AA	1005	1106	1040	1141	L – – B5XB3AA	1055	1156	1140	1241
	167	M – – B6XA3AA	1325	1435	1360	1470	M – – B6XB3AA	1375	1485	1460	1470
Threaded Copper Studs Same As Above REA Design (Also Include Penta-Head Locking Bolt)	25	L – – B1XA3AB	568	603	603	638	L – – B1XB3AB	618	653	703	738
	37½	L – – B2XA3AB	599	648	634	683	L – – B2XB3AB	649	698	734	783
	50	L – – B3XA3AB	647	704	682	739	L – – B3XB3AB	697	754	782	839
	75	L – – B4XA3AB	882	967	917	1002	L – – B4XB3AB	932	1017	1017	1102
	100	L – – B5XA3AB	1005	1106	1040	1141	L – – B5XB3AB	1055	1156	1140	1241
	167	M – – B6XA3AB	1325	1435	1360	1470	M – – B6XB3AB	1375	1485	1460	1470

① Single high voltage, 95 KV BIL and below. See Table B, Page 9 for style number designations. For multiple high voltage style number designations, see Table C, Page 9

② Single high voltage, 125 KV BIL and below See Table B, Page 9 for style number designations. For multiple high voltage style number designations, see Table C, Page 9.

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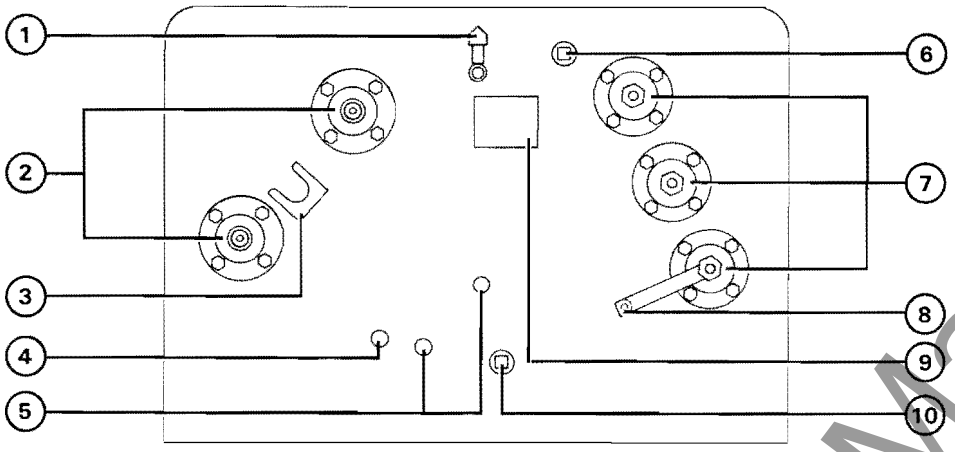
Standard Accessories



1. Fill Plug and Self-Actuating Pressure Relief Device
2. High Voltage Bushings
3. Parking Stand
4. Tank Ground Connector
5. HV Ground Connectors
6. Oil Level Plug
7. Low Voltage Bushings
8. Removable Neutral Ground Strap
9. Nameplate
10. Drain Plug

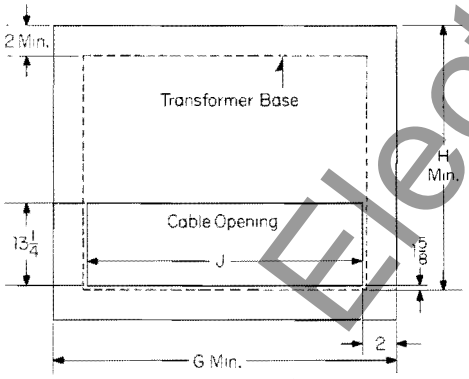
Standard Design Dimensions①

KVA	Height	Width	Depth	Weight
25	24"	36"	36"	890 lbs.
37½	24"	36"	36"	950 lbs.
50	24"	36"	36"	1025 lbs
75	24"	36"	36"	1100 lbs
100	24"	36"	38"②	1265 lbs.
167	32"	40"	38"③	1750 lbs

KVA	G	H②	J
25-75	40"	40"	32"
100	40"	42"	32"
167	44"	42"	36"

① When LBOR Switch, Dual High Voltage or Secondary Breaker is required, refer to Westinghouse.
② For 100 KVA, add 4 inches in depth for cooling fins.
③ For 167 KVA, add 11 inches in depth for cooling fins.

Recommended Pad Dimensions①



Mini-Pak Design Details

Coil: Aluminum windings, low-high-low progressively wound design, Insuldur® insulation system.

Core: WESCOR® design with Hipersil grain-oriented silicon steel and step-lapped joint construction.

Tank: Carbon steel, 0.105-inch thickness. Construction: All welded, no handholes, completely leak tested.

Paint: Zinc phosphate rust inhibitor spray; electrocoated zinc-rich primer; intermediate acrylic spray; final 1 mil coat of alkyd reinforced with polypropylene, giving green (Munsell No. 7GY3.29/1.5) textured finish.

Undercoat: Tar Mastic

Bushings: Cast Epoxy, externally-clamped.

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Distribution Transformer Division
Underground Distribution Transformer Dept.
Jefferson City, Missouri 65101