

Dry-Type Distribution Transformers, Group D, 3 to 1000 kVA

Dry-Type Distribution Transformers Group D



Primary Volts:

480 Delta

May be used on a 4 Wire 480Y/277 Volt Supply

Secondary Volts:

208Y/120

Phase and Frequency:

Three Phase, 60 Hz.

kVA	Catalog No.	Approx. Dimensions Inches (cm)			Approx. Ship Weight Lbs. (Kg.)	Type Mtg. W – Wall F – Floor	Knockouts Inches (cm)	Weather Shield P/N	Wiring – Design Figures ²
		Height	Width	Depth					
3.0	T-2A-53308-1S	10.38 (26.4)	12.37 (31.4)	7.47 (19.0)	75 (34.0)	W	0.75-1.25 (1.9-3.2)	NA	21 – F
6.0	T-2A-53309-1S	11.83 (30.0)	14.17 (36.0)	8.82 (22.4)	140 (63.5)	W	0.75-1.25 (1.9-3.2)	NA	21 – F
9.0	T-2A-53310-1S	14.03 (36.0)	17.77 (45.1)	11.52 (29.3)	180 (81.6)	W	0.75-1.25 (1.9-3.2)	NA	21 – F
15.0	T-3-53311-1S	18.86 (48.0)	20.30 (51.6)	9.03 (22.9)	250 (113.0)	F ¹	NA	NA	21 – I
25.0	T-3-53393-3S	25.48 (64.7)	24.39 (61.9)	19.37 (49.2)	290 (132.0)	F ¹	NA	WS-A-1	22 – E
30.0	T-3-53312-3S	25.50 (64.8)	24.39 (61.9)	19.37 (49.2)	290 (132.0)	F ¹	NA	WS-A-1	22 – E
37.5	T-3-53394-3S	25.50 (64.8)	24.39 (61.9)	19.37 (49.2)	400 (181.0)	F ¹	NA	WS-A-1	22 – E
45.0	T-3-53313-3S	25.50 (64.7)	24.39 (61.9)	19.37 (49.2)	400 (181.0)	F ¹	NA	WS-A-1	22 – E
50.0	T-3-53403-3S	29.41 (74.7)	28.15 (71.5)	22.37 (56.8)	475 (216.0)	F ¹	NA	WS-A-2	22 – E
75.0	T-3-53314-3S	29.41 (74.7)	28.15 (71.5)	22.37 (56.8)	500 (226.8)	F ¹	NA	WS-A-2	22 – E
112.5	T-2A-53315-3S	35.47 (90.1)	31.90 (81.0)	26.88 (68.3)	750 (340.0)	F	NA	WS-A-3	22 – E
150.0	T-3-53316-3S	41.52 (105.5)	32.90 (83.6)	29.87 (75.9)	970 (440.0)	F	NA	WS-A-4	22 – E
225.0	T-3-53317-3S	41.52 (105.5)	32.90 (83.6)	29.87 (75.9)	1200 (544.0)	F	NA	WS-A-4	22 – E
300.0	T-3-53318-3S	45.60 (115.8)	39.50 (100.3)	35.50 (90.2)	1550 (703.0)	F	NA	WS-A-5	22 – E
500.0	T-2-53319-3S	57.80 (146.8)	45.60 (115.8)	41.50 (105.4)	2480 (1125.0)	F	NA	WS-A-7	22 – G
750.0	T-2-53321-3S	62.80 (159.5)	54.00 (137.2)	41.50 (105.4)	3600 (1633.0)	F	NA	WS-A-6	22 – G
1000.0	T-1-53322-2S	62.80 (159.5)	54.00 (137.2)	41.50 (105.4)	4300 (1950.0)	F	NA	WS-A-6	80 – G

NOTES: 1 Wall mounting brackets are available for these sizes, refer to documentation.

2 Wiring diagrams and design figures are found in documentation.

Certified dimensional drawings are available on request.

Technical Data are Subject to Change without Notice.

THREE PHASE, 3 to 75 KVA

GENERAL FEATURES:

- **UL listed, CSA certified and UL-3R enclosures** meets or exceeds all listing criteria including NEMA, ANSI and OSHA standards.
- **UL Class 180°C insulation system.** 115°C rise.
- **Extra large front access wiring compartment** through 9 KVA; top access through 75 KVA for easier installation and cooler case temperatures.
- **Completely enclosed** — suitable for indoor/outdoor service. Consult selection charts for details. Excellent for dust or lint laden atmosphere.
- **Wiring connections** can be made outside of wiring compartment due to the use of flexible leads.
- **High efficiency** and excellent regulation.

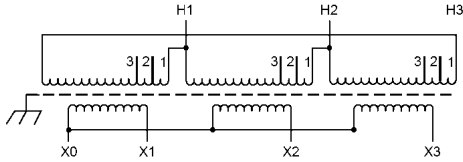
- **Encapsulated** — electrical grade silica and resin compound completely encloses the core and coil. Encapsulation seals out all moisture and air, eliminating corrosion and insulation deterioration.
- **High efficiency** and excellent regulation.
- **Sound levels** below NEMA standards.
- **Keyhole mounting slots** permit installation of mounting bolts prior to hanging transformer and are accessible from the front. Lifting ears for easy installation.
- **3-9 KVA** provided with dual size knockouts in sides and bottom of wiring compartment.
- **Termination** — copper lead wire.
- **Electrostatic shielding** provided on all 60 Hz isolation transformers.

NOTE: Units above 15 KVA apply to Groups F and K.

Wiring Diagrams

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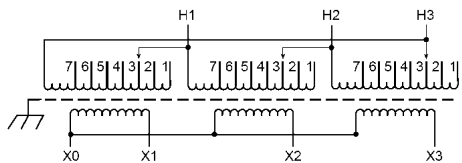
PRIMARY: 480 Volts Delta
SECONDARY: 208Y/120 Volts
TAPS: 2, 5% BNFC



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

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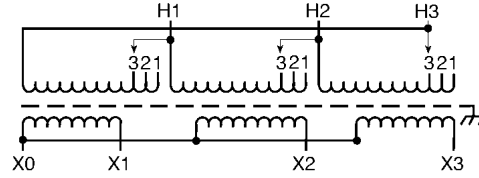
PRIMARY: 480 Volts Delta
SECONDARY: 208Y/120 Volts
TAPS: 2, 2 1/2% ANFC, 4, 2 1/2% BNFC



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

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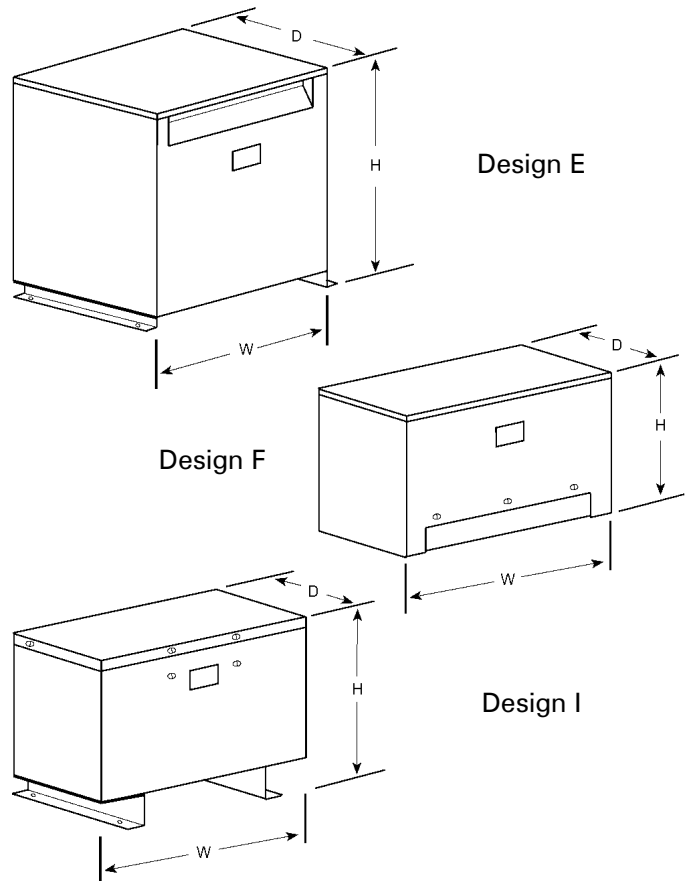
PRIMARY: 480 Volts Delta
SECONDARY: 208Y/120 Volts
TAPS: 1-5% ANFC & 1-5% BNFC



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

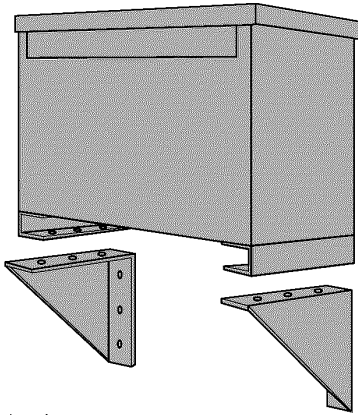
Design Figures

These drawings are for reference only.
 Contact our sales office for latest certified drawings.



Accessories

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

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

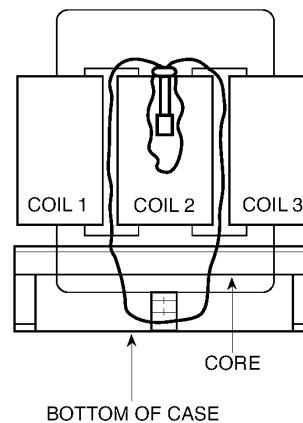


Figure 1

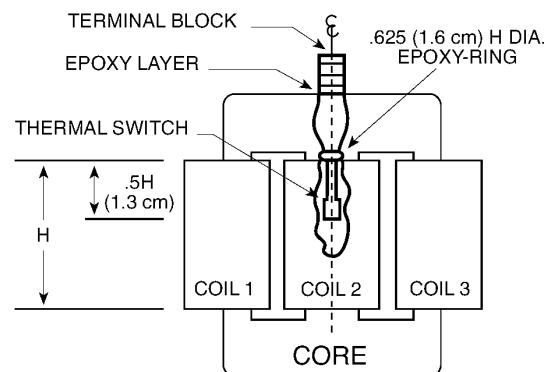


Figure 2

Accessories

Lug Kits

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.

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	2 -14	8	1/4 - 20 x 3/4	8
	27 - 45 3-phase	250 mcm - 6	4		
Lug 2	50 - 75 1-phase	250 mcm - 6	12	1/4 - 20 x 3/4	8
	51 - 118 3-phase				1/4 - 20 x 1 3/4
Lug 3	100 - 167 1-phase	250 mcm - 6	3	1/4 - 20 x 3/4	3
	145 - 300 3-phase	600 mcm - 2	22		3/8 - 16 x 2
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.)
WS-A-1	6 (2.7)
WS-A-2	7 (3.2)
WS-A-3	8 (3.6)
WS-A-4	8 (3.6)
WS-A-5	10 (4.5)
WS-A-6	10 (4.5)
WS-A-8	7 (3.2)
WS-A-53	7 (3.2)
WS-A-58	10 (4.5)
WS-A-60	9.5 (4.3)
WS-B-1	31 (14.1)
WS-B-2	31 (14.1)
WS-B-3	30 (13.6)
WS-B-4	32 (14.5)
WS-B-5	35 (15.9)

Spare Parts

TOP COVER

CATALOG NO.	APPROX. SHIP WEIGHT Lbs. (Kg.)
SA-1-701319	14 (6.4)
SA-2-701319	16 (7.3)
SA-3-701319	20 (9.1)
SA-4-701319	34 (15.4)
SA-6-701319	17 (7.7)

FRONT/REAR PANEL

CATALOG NO.	APPROX. SHIP WEIGHT Lbs. (Kg.)
SA-1-701321	13 (5.9)
SA-2-701321	15 (6.8)
SA-3-701321	21 (9.5)
SA-4-701321	35 (15.9)
SA-7-701321	16 (7.3)

SIDE PANEL

CATALOG NO.	APPROX. SHIP WEIGHT Lbs. (Kg.)
SA-1-701320	11 (5.0)
SA-2-701320	13 (5.9)
SA-3-701320	19 (8.6)
SA-4-701320	34 (15.4)