

Dry-Type Distribution Transformers, Group IX, 1 to 100 kVA

**Dry-Type Distribution Transformers
Group IX – EXPORT MODEL**



Primary Volts:

190/200/208/220 X 380/400/416/440

Secondary Volts:

120/240

Phase and Frequency:

Single Phase, 50/60 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 | | | | | |
| * 1.0 | TF-2-17437-S | 10.50 (26.7) | 5.50 (14.0) | 5.13 (13.0) | 24 (10.9) | W | 0.50-0.75 (1.3-1.9) | NA | 14 – B |
| * 2.0 | TF-2-17439-S | 13.00 (33.0) | 5.50 (14.0) | 5.13 (13.0) | 38 (17.2) | W | 0.50-0.75 (1.3-1.9) | NA | 14 – B |
| * 3.0 | TF-2-49873-S | 11.50 (29.2) | 10.31 (26.2) | 7.13 (18.1) | 55 (24.9) | W | 0.75-1.25 (1.9-3.2) | NA | 14 – C |
| * 5.0 | TF-2-52520-S | 14.38 (36.5) | 10.31 (26.2) | 7.13 (18.1) | 75 (34.0) | W | 0.75-1.25 (1.9-3.2) | NA | 14 – C |
| * 7.5 | TF-2-52794-S | 15.19 (38.6) | 13.50 (34.3) | 10.84 (27.5) | 115 (52.2) | W | 0.75-1.25 (1.9-3.2) | NA | 14 – D |
| * 10.0 | TF-2-52795-S | 15.19 (38.6) | 13.50 (34.3) | 10.84 (27.5) | 125 (56.7) | W | 0.75-1.25 (1.9-3.2) | NA | 14 – D |
| * 15.0 | TF-2-52796-S | 16.94 (43.0) | 14.12 (35.9) | 11.59 (29.4) | 170 (77.1) | W | 1.00-1.50 (2.5-3.8) | NA | 14 – D |
| * 25.0 | TF-2-52797-S | 18.44 (46.8) | 16.13 (41.0) | 13.34 (33.9) | 300 (136.0) | W | 1.00-1.50 (2.5-3.8) | NA | 14 – D |
| 37.5 | TF-2-69218-S¹ | 25.48 (64.5) | 24.39 (62.0) | 19.37 (49.2) | 285 (129.0) | F | NA | WS-A-1 | 15 – E |
| 50.0 | TF-2-69219-S¹ | 29.41 (74.7) | 28.15 (71.5) | 22.37 (56.8) | 380 (172.0) | F | NA | WS-A-2 | 15 – E |
| 75.0 | TF-2-69220-S¹ | 35.47 (91.2) | 31.90 (81.0) | 26.88 (68.3) | 445 (201.8) | F | NA | WS-A-3 | 15 – E |
| 100.0 | TF-2A-69221-S¹ | 41.52 (105.4) | 32.90 (83.6) | 29.87 (75.9) | 525 (238.0) | F | NA | WS-A-4 | 15 – E |

NOTES: * CE Marked.

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.

SINGLE PHASE, 0.250 to 25 KVA

Technical Data are Subject to Change without Notice.

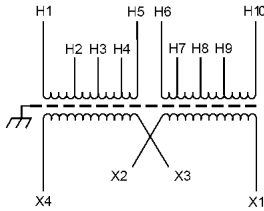
GENERAL FEATURES:

- **UL listed, CSA certified and UL-3R enclosures** meets or exceeds all listing criteria including NEMA, ANSI and OSHA standards.
- **Shielded** for cleaner power.
- **Encapsulated and completely enclosed design** electrical grade silica and resin compounds completely enclose the core and coil to seal out all moisture and air. UL Type 3R enclosure for indoor or outdoor service. Encapsulation eliminates corrosion and insulation deterioration.
- **Quiet operation** with sound levels well below NEMA standards.
- **Long life** UL class 155°C insulation system. 115°C rise thru .750 KVA; 180°C insulation system, 115°C rise, 1 KVA and above.
- **Installation** keyhole mounting slots for mounting bolts prior to installation. Mounting slots are accessible from the front. Lifting ears are included on 3 to 25 KVA units.
- **Wiring** flexible copper leadwire terminations for easy connections outside the front access wiring compartment. Dual size knockouts in both sides and the bottom of the wiring compartment for greater wiring convenience and flexibility.

Wiring Diagrams

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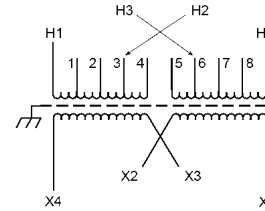
EXPORT MODEL
PRIMARY: 190-220 x 380-440
SECONDARY: 120/240



| 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 |

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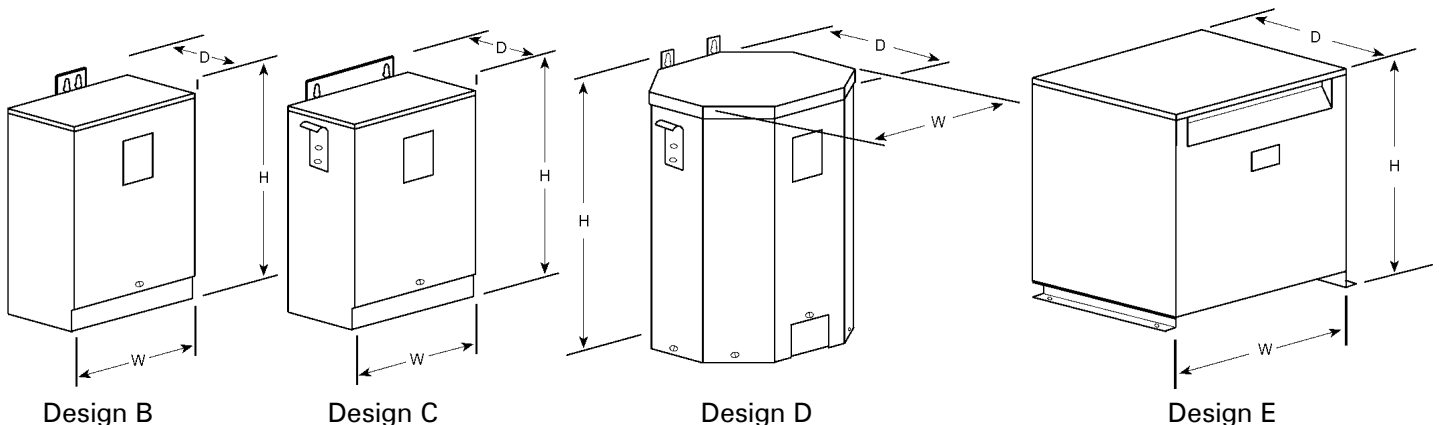
EXPORT MODEL
PRIMARY: 190-220 x 380-440
SECONDARY: 120/240



| 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 |

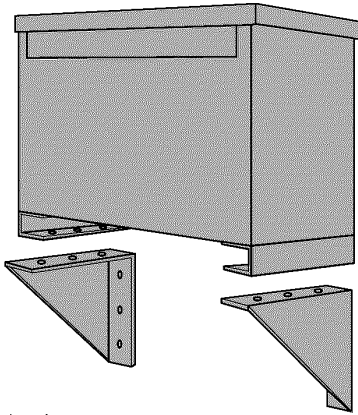
Design Figures

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 |

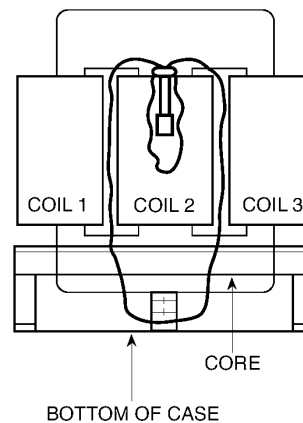


Figure 1

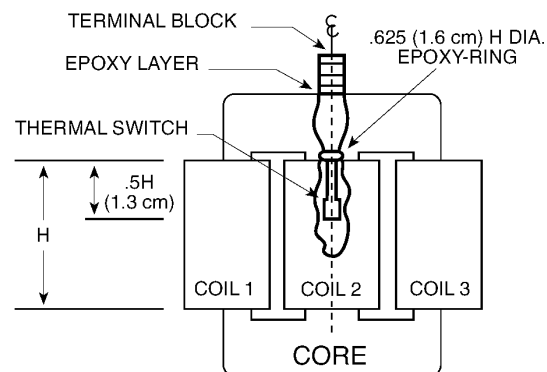


Figure 2

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) |