



# 3-Phase Oil-Filled Padmount Transformers

## 45kVA to 5,000kVA

for best-cost customization, availability and operating efficiency



All PDM padmount designs feature fully enclosed in tamper-proof terminal compartments and can be supplied with dead-front or live-front configuration, for loop or radial feed applications, with or without taps, and are provided with ONAN Type II mineral oil, with many optional features including skid-mounting.

All new PDM padmount transformers are constructed of the highest quality materials and built to heavy duty industrial standards, making them ideal for commercial and industrial applications such as data centers, solar step-up, manufacturing facilities, shopping centers, etc. Our padmount transformers are designed to the Energy Star energy efficiency standards, built and tested in accordance with industry standards including NEMA, ANSI C.57, and IEEE as applicable. All products are UL<sup>®</sup> listed.

# Technical specifications: Three Phase Oil-Filled Padmount Transformers

## Available Ratings

<b>Size (kVA)</b>	45, 75, 112.5, 150, 225, 300, 500, 750, 1000, 1500, 2000, 2500, 3000, 3750, 5000
<b>Frequency</b>	60 Hz or 50 Hz
<b>Cooling Class</b>	ONAN
<b>Temperature Rise</b>	55°C, 65°C, 55/65°C, 75°C
<b>Primary Voltages by Class</b>	Available in Δ or Y configuration
<b>600V</b>	208, 240, 416, 480, 600
<b>2.5kv – 5kv</b>	2400, 4160, 4800
<b>15kV</b>	12000, 12470, 13200, 13800, 14400
<b>25kV</b>	20780, 21600, 22900, 24940, 26400
<b>35kV</b>	33000, 345000

## Sample Transformer Design (1250kVA, Primary Voltage: 12.47kV, Secondary: 415/240VAC)

ITEM	WEIGHT(Kg)
TANK & ACCESORIES	2230
TOTAL OIL WEIGHT	980
TOTAL WEIGHT	3650

ITEM	FITTINGS AND DESCRIPTIONS	QTY
1	sleeve joint (TT-15/600)	6
2	HV BUSHING ( TGZ-15/600 )	6
3	LV BUSHING (1.0KV 2200A)	4
4	TANK AND COVER ASSEMBLY	1
5	RADIATORS( PC1100-13/480 )	3
6	Z-HOLE HORIZ NEMA GRD PAD	3
7	OIL DRAIN VALVE(DN25)	1
8	OIL FILL VALVE	1
9	HV Fuse(PRNT4-15.5/100)	3
10	MARSHALLING BOX	1
11	TAP CHANGER (WSLI3-63/20-6x5)	1
12	OIL THERMOMETER (BWY-803A )	1
13	Load Switch( FYN33-12/630-20)	1
14	PRESSURE RELIEF DEVICE(YZF-35/25K)	1
15	OIL-LEVEL INDICATOR(YZF-90)	1
16	vacuum manometer(YZ-70)	1
17	LIFTING LUGS	4
18	Metal Jacket	1
19	OIL SAMPLING VAVAES	1

TYPE: ZGSL-H-1250/12.47/0.4/15 5.75% Dyn1

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1.710.XXXX

DWG. NAME: General Assembly Drawing

FIRST ANGLE PROJECTION    SCALE: 1

Power and Data Management LLC.

## Standard Features:

1. Four lifting lugs.
2. Bolted-on terminal compartment (18" or 24" deep depending on kVA) with removable front sill.
3. Hinged, lift-off cabinet doors.
4. Interlocked penta-head bolt/padlock handle operates a cam assembly which is part of the 3-point door latching mechanism. (A hex-head bolt is available.)
5. For Live Front construction, externally clamped high voltage porcelain bushings with a single eye bolt, clamp type connector (accommodates #6 AWG solid to 250 MCM stranded conductors).
6. For dead front construction, externally clamped high voltage bushing wells for load break or non-load break inserts.
7. Lightning arrester mounting pads (live front only).
8. Tank ground pads (1 in HV, 1 in LV).
9. Steel high/low voltage compartment barrier.
10. One 1/2" penta-head bolt must be removed from the flange formed on the steel high/low barrier before the HV door can be opened (1/2" hex-head bolt available as an option)
11. Externally clamped low voltage bushings with threaded copper stud for full load current below 2100amps. Externally clamped integral low voltage bushings for current above 2100 amps. NEMA spades provided per ANSI hole requirements.
12. PDM Nameplate.
13. Fill plug and self-actuating pressure relief device.
14. Drain plug.
15. Removable neutral ground strap.
16. Five-legged core/coil assembly.
17. Handhole cover bolted onto tank top (protected by weather cover).
18. Panel-type coolers.
19. NEMA safety labels.
20. The paint finish process applies a durable, corrosion resistant finish to the product. The finish meets or exceeds all the performance requirements of ANSI C57.12.28. The multi-step process includes an epoxy primer uniformly applied by cathode electrodeposition and a urethane top coat.

## Optional Features:

### Primary Terminations

- Externally-clamped bushing wells with load break or non-load break inserts.
- Integral load break bushings. Secondary Termination
- Externally-clamped bushings with NEMA 6-hole, 8-hole, 10-hole, or 12-hole spades.
- Spade supports are available. They are provided for 8-hole spades and larger when the current is 1400 amps or greater.

### Primary Switching

- LBOR oil switch: one for radial, two for loop feed.
- Externally-operated tap changer.
- Externally-operated dual voltage switch.
- Externally-operated delta-wye switch.

### Overcurrent Protection

- Internal primary protective links.
- Bayonet-type expulsion fuses.
- Draw out, load break current limiting fuses, with or without interlocking transformer switch.
- Secondary oil circuit breaker.
- Internal, partial-range current limiting fuses.

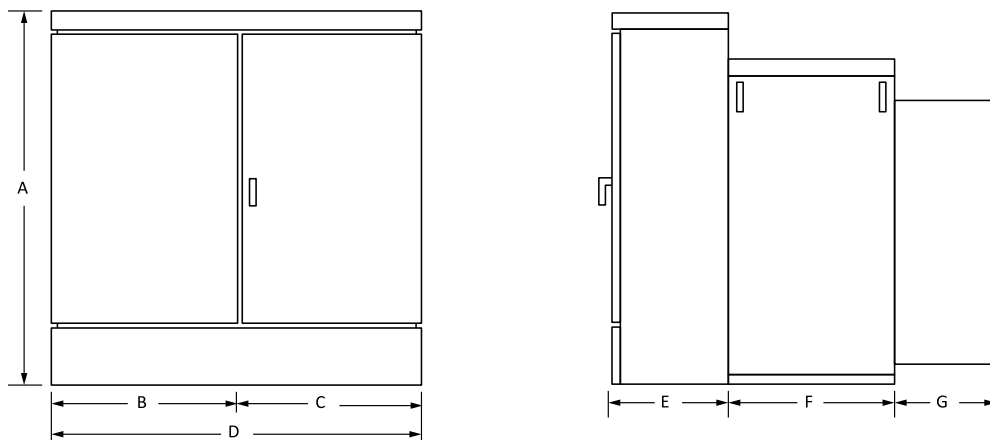
### Overvoltage Protection

- Distribution class, metal oxide arresters, 3-36 kV.
- Distribution class, valve-type lightning arresters, 3-27 kV.

## Construction Options

- 18", 24" and 30" deep terminal cabinet.
- Drain valve and sampling device.
- Mounting plate for CT's or PT's.
- Interphase barriers.
- Molded-case external secondary breaker.
- Substation Accessories - Oil gauge, thermometer, drain valve and sampler, pressure-vacuum gauge provision.
- Weather cover.
  - Transformers may feature an optional weather cover over the cabinet which is hinged to allow clearance for replacement of the bayonet-type fuses.
  - The weather cover can be lifted easily into place and secured with a single supporting arm.
  - The weather cover requires no additional hold down hardware.

**Fig 1. Padmount Transformer Outline**



**Table 1. Approximate Transformer Dimensions**

kVA	A	B	C	D	E	F	G	Gallons	Weight (Lbs)
300	59"	29.5"	22"	51.5"	20.5"	24"	10"	196	4,056
500	59"	33"	26.5"	59.5"	24"	26.5"	10"	210	5,023
750	73"	36"	29"	65"	24"	26.5"	10"	358	7,664
1000	73"	36"	29"	65"	24"	27"	10"	354	8,530
1500	73"	36"	35.5"	71.5"	24"	33.5"	10"	410	10,782
2000	75"	39.5"	28"	67.5"	24"	35"	27"	433	12,490
2500	78"	39.5"	35.5"	75.5"	24"	37.5"	22.5"	545	14,246
3000	84"	30.5"	32"	62.5"	24"	37.5"	38"	550	14,014
3750	75"	50.5"	30"	80.5"	25.5"	42"	38"	730	17,785



Check out our integrated Switchboard option, with circuit-breakers installed to support your load requirements.

Lead times are **six to eight (6-8) weeks**, depending on options and customization selected. Large Volume orders will be produced and shipped in batches of 3-to-4 transformers per batch.

**All products are covered by PDM's Limited Warranty for five (5) years. Extended warranties are available.**