

VFI Oil-Filled Padmount Transformers

45kVA to 5,000kVA

Delivering both voltage and overcurrent protection
in a single space and cost-saving package



PDM's three-phase Vacuum Fault Interrupter (VFI) transformer delivers dual functionality in a single, compact, and cost-effective solution. Integrating a pad-mounted transformer with a VFI, this unit provides voltage transformation and transformer/loop overcurrent protection within a design that streamlines installation, lowers costs, and minimizes space requirements.

All PDM padmount designs feature fully enclosed, 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.

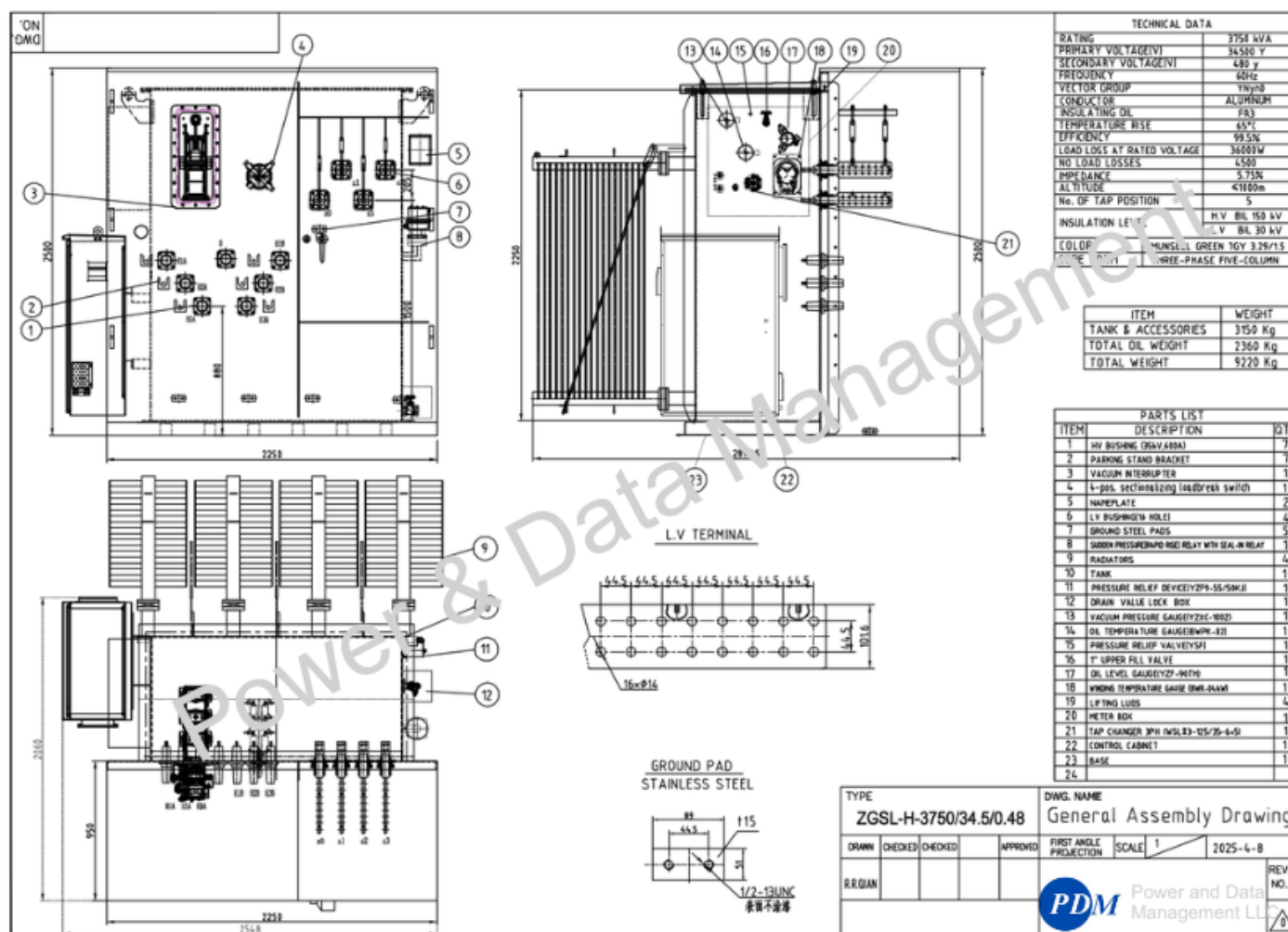
All new PDM padmount transformers are constructed of the highest quality materials and built to heavy duty industrial standards, making them ideal for commercial and industrial applications such as data centers, solar step-up, manufacturing facilities, shopping centers, etc. Our padmount transformers 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® listed.**

Technical specifications: Three Phase Oil-Filled Padmount Transformers

Available Ratings

Size (kVA)	45, 75, 112.5, 150, 225, 300, 500, 750, 1000, 1500, 2000, 2500, 3000, 3750, 5000
Frequency	60 Hz or 50 Hz
Cooling Class	ONAN or KNAN
Temperature Rise	55°C, 65°C, 55/65°C, 75°C
Primary Voltages by Class	DELTA/wye, WYE/wye, WYE/delta
600V	208, 240, 416, 480, 600
2.5kV – 5kV	2400, 4160, 4800
15kV	12000, 12470, 13200, 13800, 14400
25kV	20780, 21600, 22900, 24940, 26400
35kV	33000, 34500

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



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.
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.
- Skid-mounting
- Substation Accessories - Oil gauge, thermometer, drain valve and sampler, pressure-vacuum gauge provision.
- Weather cover.
 - o Transformers may feature an optional weather cover over the cabinet which is hinged to allow clearance for replacement of the bayonet-type fuses.
 - o The weather cover can be lifted easily into place and secured with a single supporting arm.
 - o The weather cover requires no additional hold down hardware.

Fig 1. Padmount Transformer Outline

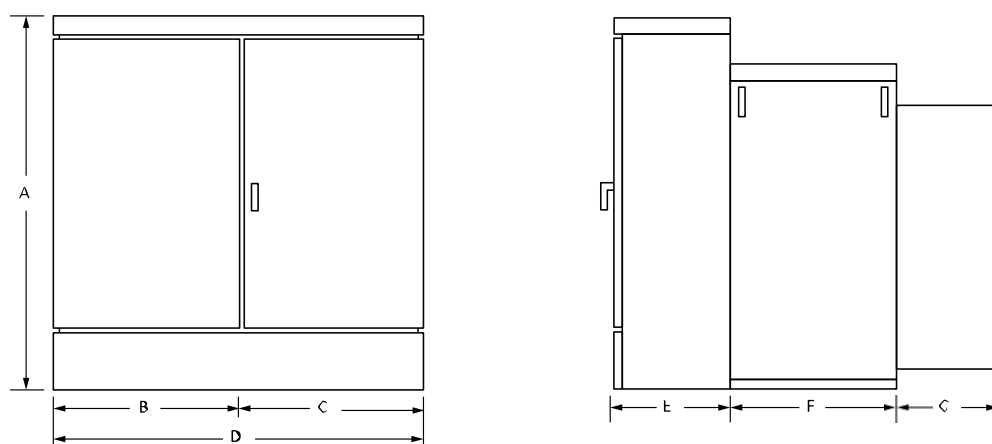


Table 1. Approximate Transformer Dimensions

kVA	A	B	C	D	E	F	G	Gallons	Weight (Lbs)
300	59"	29.5"	22"	51.5"	21"	24"	10"	196	4,058
500	59"	33"	26.5"	59.5"	25"	26.5"	10"	210	5,025
750	73"	36"	29"	65"	25"	26.5"	10"	358	7,666
1000	73"	36"	29"	65"	25"	27"	10"	354	8,540
1500	73"	36"	35.5"	71.5	25"	33.5"	10"	410	10,785
2000	75"	39.5"	28"	67.5	25"	35"	27"	433	12,494
2500	78"	39.5"	35.5"	75.5"	25"	37.5"	22.5"	545	14,260
3000	84"	30.5"	32"	62.5"	25"	37.5"	38"	550	14,018
3750	75"	50.5"	30"	80.5"	25.5"	42"	38"	730	17,790



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

Lead times are ***nine (9) weeks***, depending on options and customization selected. Large Volume orders may 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.