

Three-Phase Pad-Mount Transformers

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Pad-mount transformers are ground-mounted distribution transformers enclosed in a metal cabinet, usually located on a concrete pad. This type of transformer, enclosed in a grounded metal box with all live contact points, can be installed in residential areas without fencing, unlike transformers in substations.

MPS' pad mount transformers are protected against tampering and the weather, so they can be safely placed where people are present. All enclosures are made from heavy gauge sheet steel and powder painted with a baked-on coating to make them tamper-resistant. Our pad mount transformers come in live-front and dead-front designs along with radial or loop feed.

Our transformers are made of high-grade materials and typically support residential, commercial, and industrial loads in cities and rural areas. They are filled with sustainable and biodegradable dielectric fluid, which offers excellent fire protection and a longer lifespan.

MPS manufactures a full variety of liquid-filled Three-Phase Pad-Mounted distribution transformers that comply with ANSI/IEEE standards.



General Characteristic

Base KVA Rating:	45 kVA through 10,000 kVA	Frequency:	50 Hz, 60Hz
Primary Voltages:	600-35,000 V	Standard:	IEEE/ANSI, CSA
Secondary Voltages:	208/120Y - 34,500V	Tank Type:	Pad-Mount
Phases:	Three	Windings:	Copper, Aluminum

Design Specifications

HV Bushings Configuration

- Dead-Front or Live-Front
- Loop Feed or Radial Feed

Fluid Options

- Type-II Mineral Oil
- Non-Mineral Oil (Synthetic Ester, Natural Ester)
- Envirotemp™ FR3™

Overcurrent Protection

- Bayonets Fusing (Current sensing (CLF), High amperage overload)
- Surge arresters
- Elbow arresters (for dead-front designs)

Construction

- Rectangular Wound Copper or Aluminum Windings
- Mild Steel or Stainless Steel Tank
- Steel divider between HV and LV cabinets
- Penta-head Captive Bolt
- Stainless steel door hinges
- Bolted cover for tank access

KVA Ratings (45-5000 KVA)¹

45, 75, 112.5, 150, 225, 300, 500, 750, 1000, 1500, 2000, 2500, 3000, 3750, 5000.

1 Transformers come in standard ratings and can be customized for specific requirements.

Winding Connection Configurations

- Delta - Wye
- Grounded Wye – Wye
- Delta – Delta
- Wye – Wye
- Wye – Delta

Cooling Mechanism

ONAN, KNAN

Nameplate

Stainless Steel Nameplate

Ancillary Equipment

- Oil Temperature Indicator (OTI)
- Winding Temperature Indicator (WTI)
- Magnetic Oil Level Gauge (MOG)
- Forced Fan Cooling
- Marshalling Box
- Pressure Relief Device (PRD)
- Radiator Valves
- Dehydrating Breather
- Adjustment Taps

Standard Testing

Every transformer undergoes all standard commercial tests in accordance with ANSI C57.12.90.

- Heat Run Test
- ANSI Impulse Test
- Audible Sound-Level Test
- 8- or 24-Hour Leak Test
- Temperature Test
- Turn Ratio Test
- Windings Resistance Test
- Polarity Test
- Induced Voltage Test

Accessories

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|-------------------------|---------------------|-----------------------------|------------------------------------|
| ▪ Vacuum manometer | ▪ Oil drain valve | ▪ Tapping switch | ▪ Two 2-Position Line Switches |
| ▪ Pressure relief valve | ▪ FR3 | ▪ 2 Position ON/OFF, | ▪ Cable connector for H.V. Bushing |
| ▪ Oil filter | ▪ Bayonet Fuse | ▪ 4-Position T-Blade Switch | |
| ▪ Oil Level indicator | ▪ Temperature gauge | ▪ 4-Position V-Blade Switch | |

Audible Sound Levels (as per NEMA Standards)

Two-Winding KVA Rating	Decibels (dB)
45-500	56
501-700	57
701-1000	58
1001-1500	60
1501-2000	61
2001-2500	62
2501-3000	63
3001-4000	64
4001-5000	65

Transformer Dimensions

Rating (KVA)	Height (mm) A	Width (mm) B	Depth (mm) C	Oil Weight (kg)	Total Weight (kg)
45	1430	1350	900	100	540
75	1430	1390	910	120	645
112.5	1430	1420	920	138	729
150	1530	1510	980	201	989
225	1530	1510	980	201	989
300	1680	1660	1080	260	1415
500	1790	1810	1160	325	1905
750	2030	2030	1300	535	2755
1000	1854	1651	1549	650	3235
1500	2150	2210	1470	748	5835
2000	2220	2380	1600	950	6430
2500	2330	2480	1650	1020	8865

* The measurements and weights are for reference only. For exact dimensions, please get in touch with MPS.

Padmount Transformer Outline

