



SUBSTATION TRANSFORMER SPECIFICATIONS SHEET

Choose GameChange BOS for reliable and versatile substation transformers — designed to empower industries, safeguard operations, and foster innovation worldwide.

ADVANCED POWER SOLUTIONS

Powering Innovation with GameChange BOS

Our substation transformers are engineered for superior performance and reliability across various industries, including energy production, utility distribution, industrial manufacturing, and municipal infrastructure. With base ratings up to 15 MVA and primary voltages reaching 69 kV, our transformers meet the unique requirements of any application.

We prioritize innovation and efficiency, providing custom solutions that integrate seamlessly with new and existing infrastructure and optimizing operations even in the most demanding environments.

Each GameChange BOS transformer features a sealed tank construction with welded-on covers, enhancing durability and ensuring compliance with IEC/IEEE/IS standards. Skid mounting options are also available to accommodate different installation needs.

Commercial and Industrial

GameChange BOS substation transformers are designed for commercial and industrial applications, converting distribution to utilization voltages. These transformers are configurable to meet virtually any application requirements.

Configurations Available:

- **Open Substation:** Primary or secondary configurations with cover-mounted bushings for overhead line connections.
- **Unit Substation:** Primary or secondary configurations with enclosed sidewall-mounted bushings for easy connections to primary or secondary switchgear.

Specifications:

- Available in capacities from **500 to 25,000 kVA**.
- Temperature rise options: **55 °C, 65 °C and 55/65 °C**
- **UL Classified/FM Approved** units are available.

Technical specifications at a glance:

| SPECIFICATION | RANGE |
|---------------------------|----------------------------------|
| Base kVA | 500 kVA to 15,000 kVA |
| MAX KVA | 25,000 KVA |
| Primary Voltage | 2400 V TO 69,000 V |
| Secondary Voltage | 208 V TO 36,000 V |
| Basic Impulse Level (BIL) | 30 kV to 350 kV |
| Fluids | Natural Ester Oil or Mineral Oil |

Example Specification and Testing Capabilities for Power Transformers

| | | |
|--|-----------|--------------------------------|
| Applied standard | | IEEE - C57. 12/ IEC/ IS |
| Type | | Outdoor |
| Rated power (Base/Max) | MVA | 500 kVA - (15/25) MVA |
| Number of phases | | 3 |
| Rated Voltage, Phase to Phase | | |
| Max high voltage winding | kV | 69 |
| Min low voltage winding | kV | .208 |
| Rated frequency | Hz | 50/60 |
| Proven Impulse Capabilities | | |
| Max impulse generator capacity in voltage & energy | kV/ kJ | 500 / 50 |
| Lightning impulse capability | kV | 500 |
| Chopped wave lightning impulse (LIC) capability | kV | 400 |
| High voltage winding | kV | 500 |
| Low voltage winding | kV | 30 |
| Neutral side | | Full insulation |
| AC Withstand Voltage | | |
| High voltage winding | kV | 150kV |
| Low voltage winding | kV | 150kV |
| Impedance voltage at 75°C and nominal ratio and 100% rated power | % | PER IEEE/IEC/IS |
| Vector diagram (IEEE/IEC/IS) | | As required |
| Type of cooling | | ONAN/ONAF/ONAF, KNAN/KANF/KNAF |
| On load tap-changer | | Yes |
| Type | | With oil/vacuum switches |
| Rated tap | KV | 35kV |
| Tapping range capacity | % | ±10 |
| Positions | | 17 or higher |
| Temperature Rise at Rated Power (Maximum Ambient Temperature: 40°C) | | |
| Oil by thermometer | deg. C | 55 |
| Winding by resistance measurement | deg. C | 60 |
| Maximum hot spot temperature when loaded in accordance with IEEE | deg. C | 105 |
| Core loss at rated frequency and rated voltage at nominal tap | kW | As required |
| Copper loss at full load, at rated frequency | kW | As required |
| Overall dimension | inches/mm | Based on design specification |
| Overall weight | lbs/kg | Based on design specification |
| Transport weight | lbs/kg | Based on design specification |

CONTACT US!

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