



TRANSFORMERS FOR DATA CENTERS

MAXIMUM POWER RELIABILITY FOR HIGH-PERFORMANCE
COMPUTING INFRASTRUCTURE

The rapid expansion of cloud services, artificial intelligence workloads, and global connectivity has made data centers a cornerstone of modern digital infrastructure. These facilities demand power systems of the highest reliability, capable of ensuring operational continuity, voltage stability, and protection of sensitive electronic loads, even under the most demanding operating conditions.

In this environment, the medium-voltage transformer plays a critical role: it forms the electrical interface between the utility grid and the UPS systems and distribution infrastructure that supply critical loads throughout the facility. Rymel has developed special-purpose transformers for Data Center applications, engineered to meet the demands of high availability, harmonic-rich environments, frequent switching operations, continuous monitoring, and protection of sensitive electronic equipment. Rymel Data Center transformers are conceived to deliver maximum reliability, thermal robustness, and safe performance in both indoor and outdoor installations.

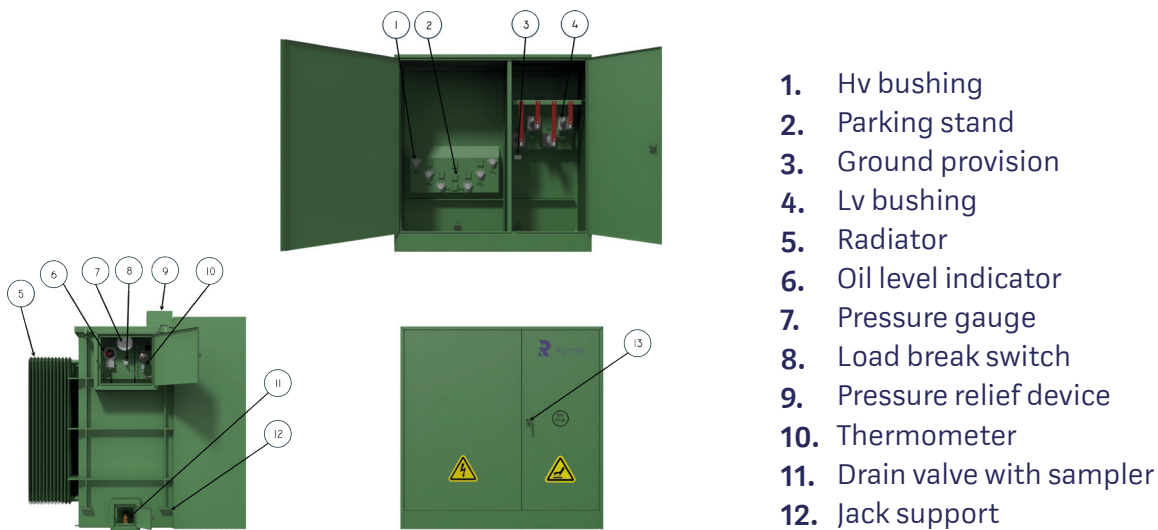
Design & Performance Features:

- Designed to supply critical loads with high continuity of service.
- Engineered to withstand non-linear loads and high harmonic content.
- Reinforced thermal sizing for sustained performance under demanding operating conditions.
- Incorporates an electrostatic shield for protection of sensitive electronic equipment.
- Low-voltage winding with reinforced insulation, designed to withstand voltage transients caused by fast switching operations.
- Compatible with frequent switching operations and energization events associated with automatic transfer schemes.
- Protection system with proper coordination, ensuring safe and reliable operation.
- Integration with real-time monitoring and supervisory systems.
- Built for high reliability, operational safety, and extended service life.



Advantages of Data Center Transformers:

- Greater reliability in power supply for critical infrastructure.
- Enhanced protection for sensitive loads such as servers, UPS systems, and electronic equipment.
- Superior performance under demanding operating conditions and harmonic-rich environments.
- Reduced risk of failure due to overheating or dielectric stress.
- Increased safety in outdoor installations.
- Improved operational continuity during source transfer and automatic switchover events.
- Integration capability for permanent condition monitoring of the transformer.
- Higher electrical system availability across the Data Center.
- Adaptability to different project sizes and power distribution architectures.



1. Hv bushing
2. Parking stand
3. Ground provision
4. Lv bushing
5. Radiator
6. Oil level indicator
7. Pressure gauge
8. Load break switch
9. Pressure relief device
10. Thermometer
11. Drain valve with sampler
12. Jack support

*Additional requested accessories can be integrated into the transformer.

TECHNICAL INFORMATION	
Power Ratings [kVA]:	500 to 5000
Series voltage [kV]:	15, 36
Voltage HV [V]	13200 - 34500
Voltage LV [V]:	Up to 440 V
Number of Phases:	3
Operating Frequency Range [Hz]:	60
Vector Group:	DD, YY, DY
Mounting Type:	Outdoor
Standards:	IEEE
Winding Temperature Rise:	65 °C or 55 °C
BIL [kV]	Up to 200
K Factor	1 to 20
Insulation Class	120
Insulating Fluid	Mineral or Vegetable
Cooling	ONAN KNAN
Tap Changer	5 positions

Special Features:

- Load-break switch for on-load operation.
- Designed to operate under harmonic-rich load conditions.
- Electrostatic shield.
- Dead-front bushings.
- Integration with real-time monitoring and supervisory systems.
- Reinforced insulation.
- High-efficiency unit.
- High-voltage and low-voltage compartments.
- Electrostatic powder coating finish.
- Designed to ensure electrical system availability across the Data Center.
- Built for high reliability, operational safety, and extended service life.