

The logo for ekabel, with 'e' in red and 'kabel' in blue, followed by a registered trademark symbol.

ekabel®

A high-angle photograph of a large electrical substation featuring numerous grey metal transformer units with dark brown insulators and white cylindrical components. The scene is set outdoors under bright sunlight.

TRANSFORMERS

LIFELONG RELIABILITY

OUR SCOPE:

- CAST RESIN TRANSFORMERS
- OIL-IMMERSED DISTRIBUTION TRANSFORMER
- POWER TRANSFORMER
- SERVICES

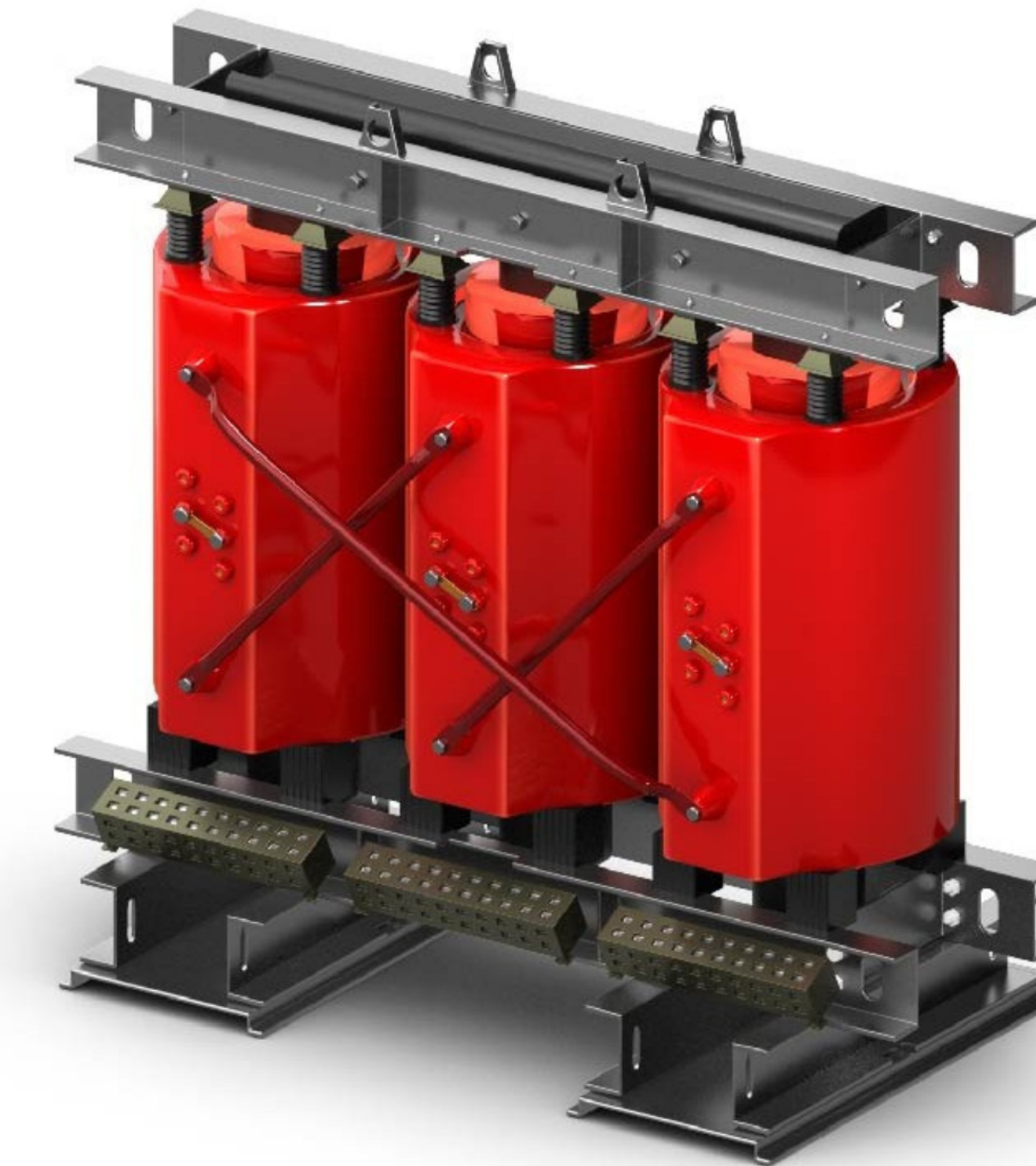
CAST RESIN DRY TRANSFORMERS

WHY CAST RESIN DRY TRANSFORMERS?

- **Safe Equipment**
- **Durability**
- **Flexibility and cost saving**

TECHNICAL SPECIFICATIONS

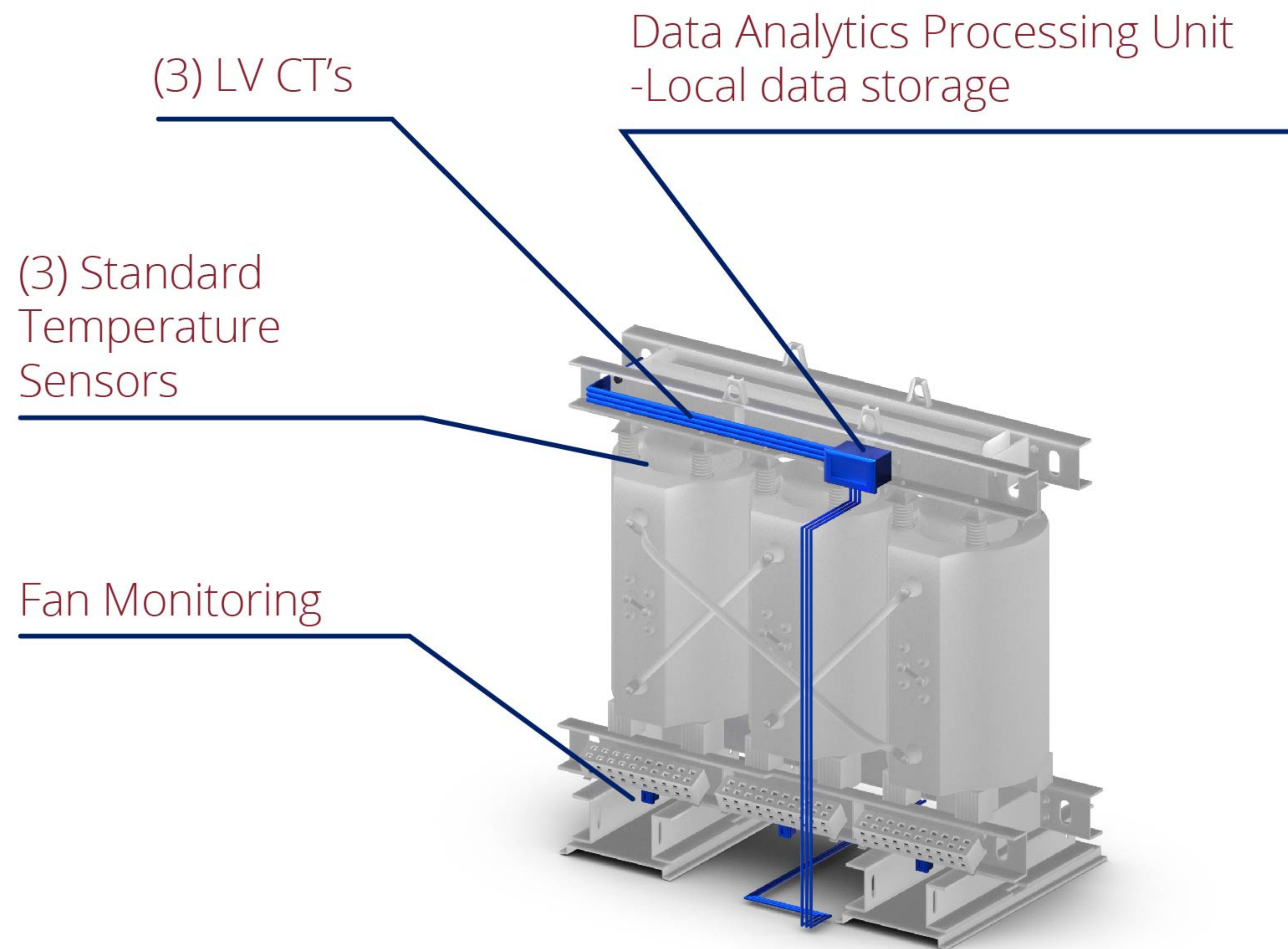
- Rated power from 50 KVA up to 15 MVA with rated voltage up to 36 KV.
- Manufactured and tested according to IEC 60076.
- Test certificate for our product from KEMA, CESI.
- Materials of LV & HV: Aluminum or Copper according to customer request.
- Highly moisture-proof (operates up to 100% humidity).
- Insulation level class F 155°C and class H 180°C.
- Low partial discharge (≤ 10 PC).



- Classified E2, C2&F1 according to IEC 60076-11.
- Optional enclosure (from IP20 up to IP44) for both indoor and outdoor application according to IEC-60529.
- Enclosures specially designed to dissipate heat properly.
- Optional forced cooling up to 40% for overloading.
- Dual HV winding (22-11, 11-6.6.../0.4).
- Dual LV winding.

SMART MONITORING

Cast Resin Dry Transformer with Smart Monitoring



The operator can remotely monitor the behavior of the transformer core, windings, fan operation, power output and keeping a close watch on critical transformer components.

Dynamic control of real and reactive power can optimize the efficiency of distribution systems, improve power quality in a more dynamic operating environment and limit fault current.

Cast Resin Dry Transformers ensure Testing & Quality Control such as:

- Routine Test
- Type Test
- Special Tests

OIL DISTRIBUTION TRANSFORMERS

WHY OIL DISTRIBUTION TRANSFORMER?

Distribution transformers are built up to 15 MVA, 36kV with a production program that covers the hermetically sealed and conservator types and Immersed in Oil or Ester Fluid.

01. SMALL DISTRIBUTION

Product Range:

50 KVA up to 250 KVA, 36 KV.

Application:

Distribution Grid - Pole mounted - Pad mounted - Auxiliary Transformers.

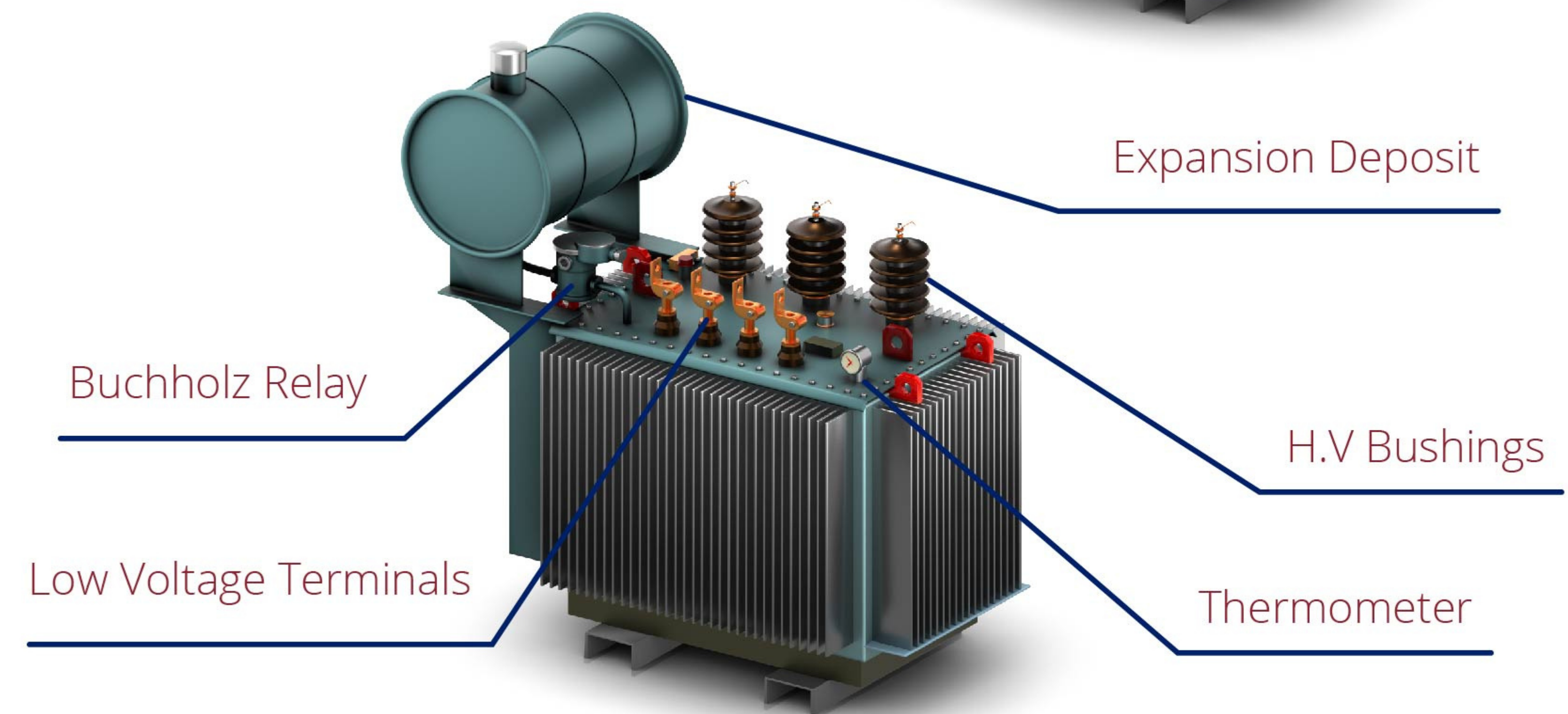
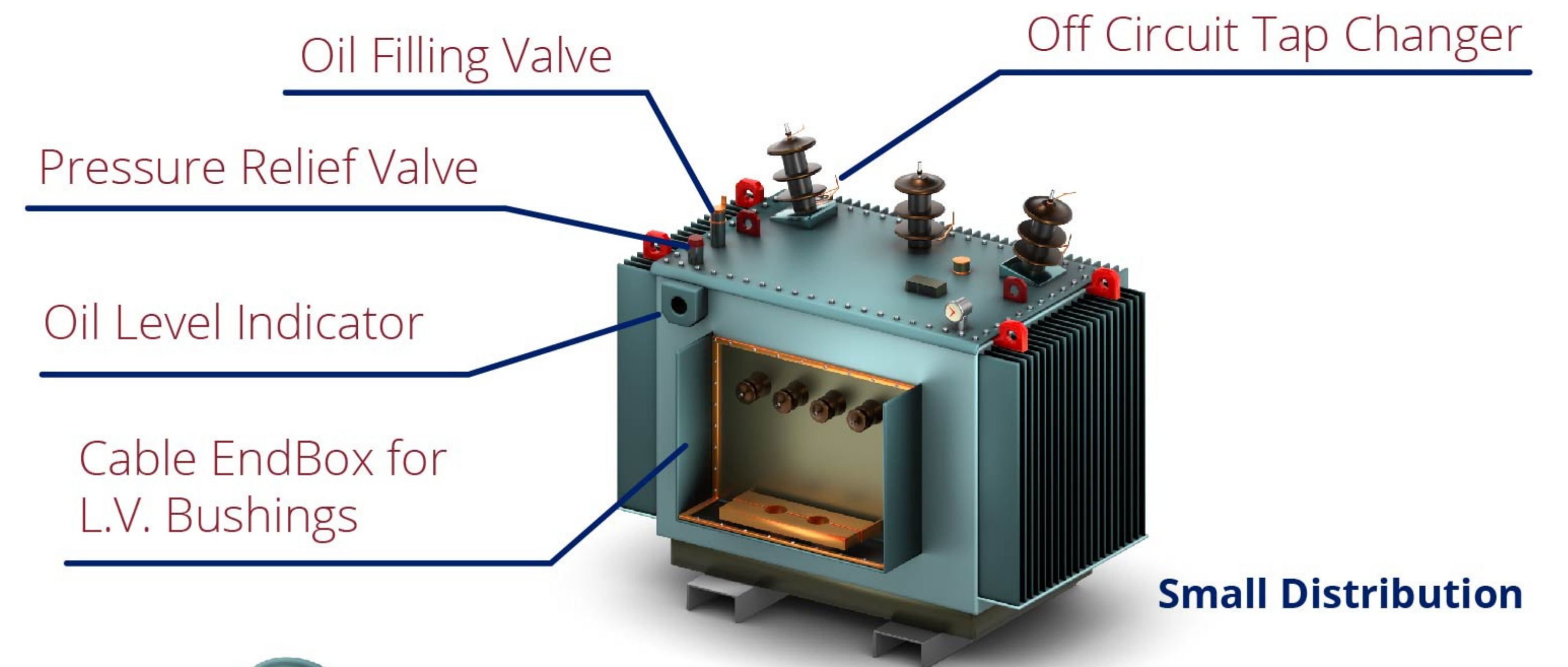
02. LARGE DISTRIBUTION

Product Range:

250 KVA up to 5,000 KVA, 36 KV.

Application:

Distribution Grid - Pole mounted - Pad mounted - Unit substation - Package substation.



OIL DISTRIBUTION TRANSFORMERS

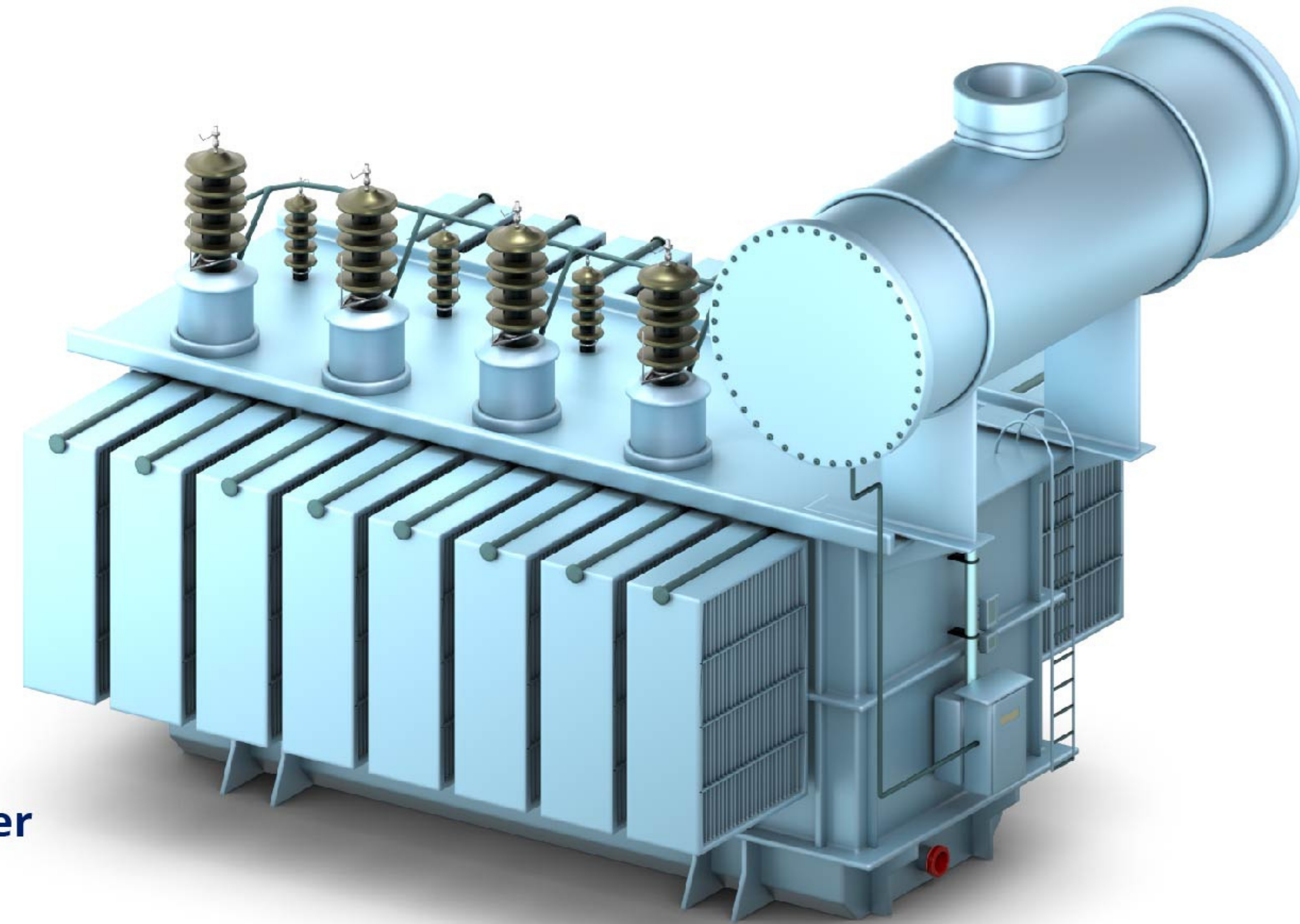
03. MEDIUM POWER

Product Range:

5.000 KVA up to 15.000 KVA, 36 KV.

Application:

Distribution Grid - PGeneration application. Auxiliary transformer.



Medium Power

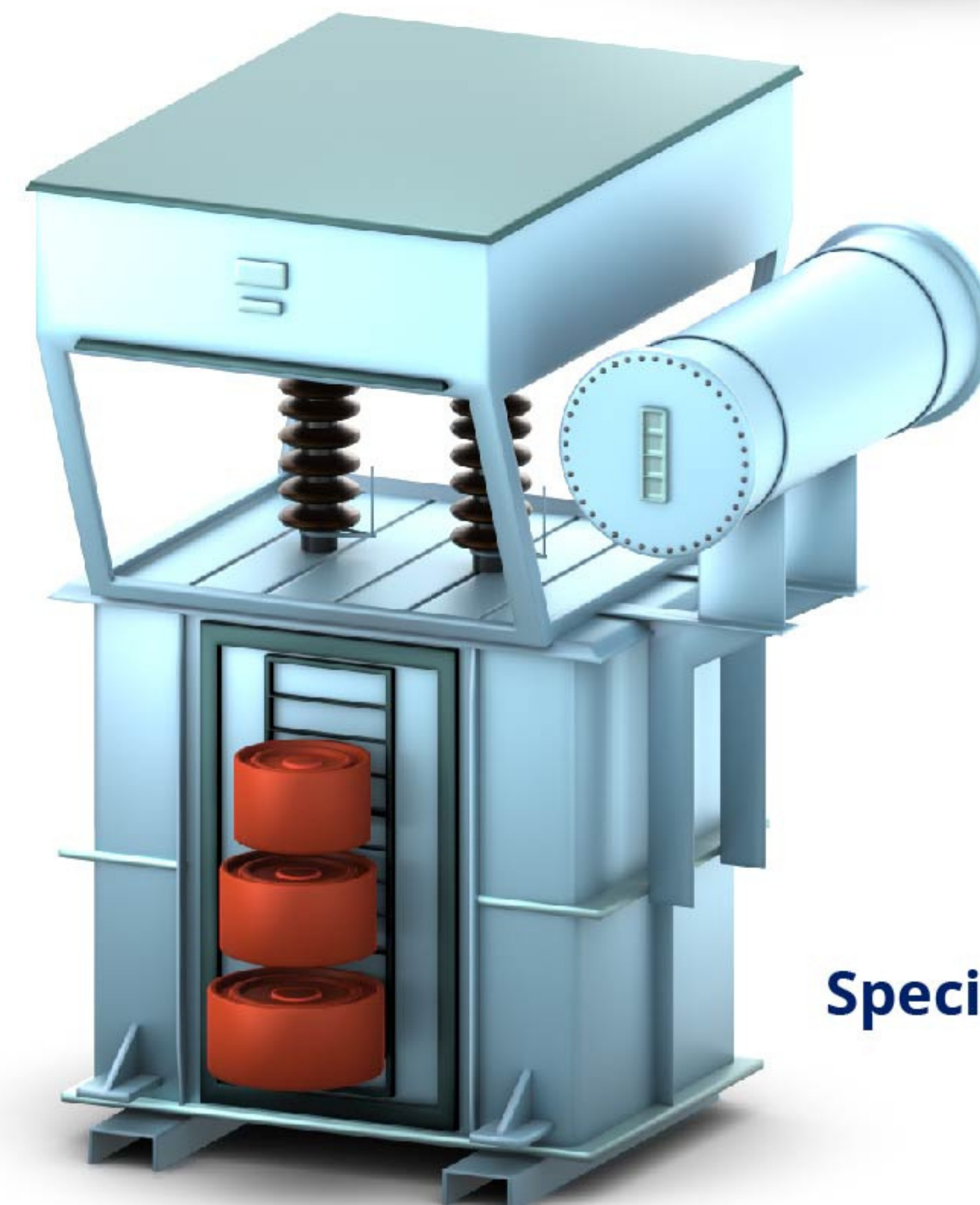
04. SPECIAL TRANSFORMERS

Product Range:

Up to 15.000 KVA, 36 KV.

Application:

Solar Application - Wind application - Variable Speed Drive Application - Converter - Arc Furnace Traction - ZigZag Earthing - Earthing auxiliary.



Special Transformers

SOME STANDARD ACCESORIES

- Porcelain HV and LV bushing
- Earthing Terminals
- Thermometer Pocket
- Pressure Relief Valve
- Visual Oil Level Indicators
- Lifting Lugs/Wheels

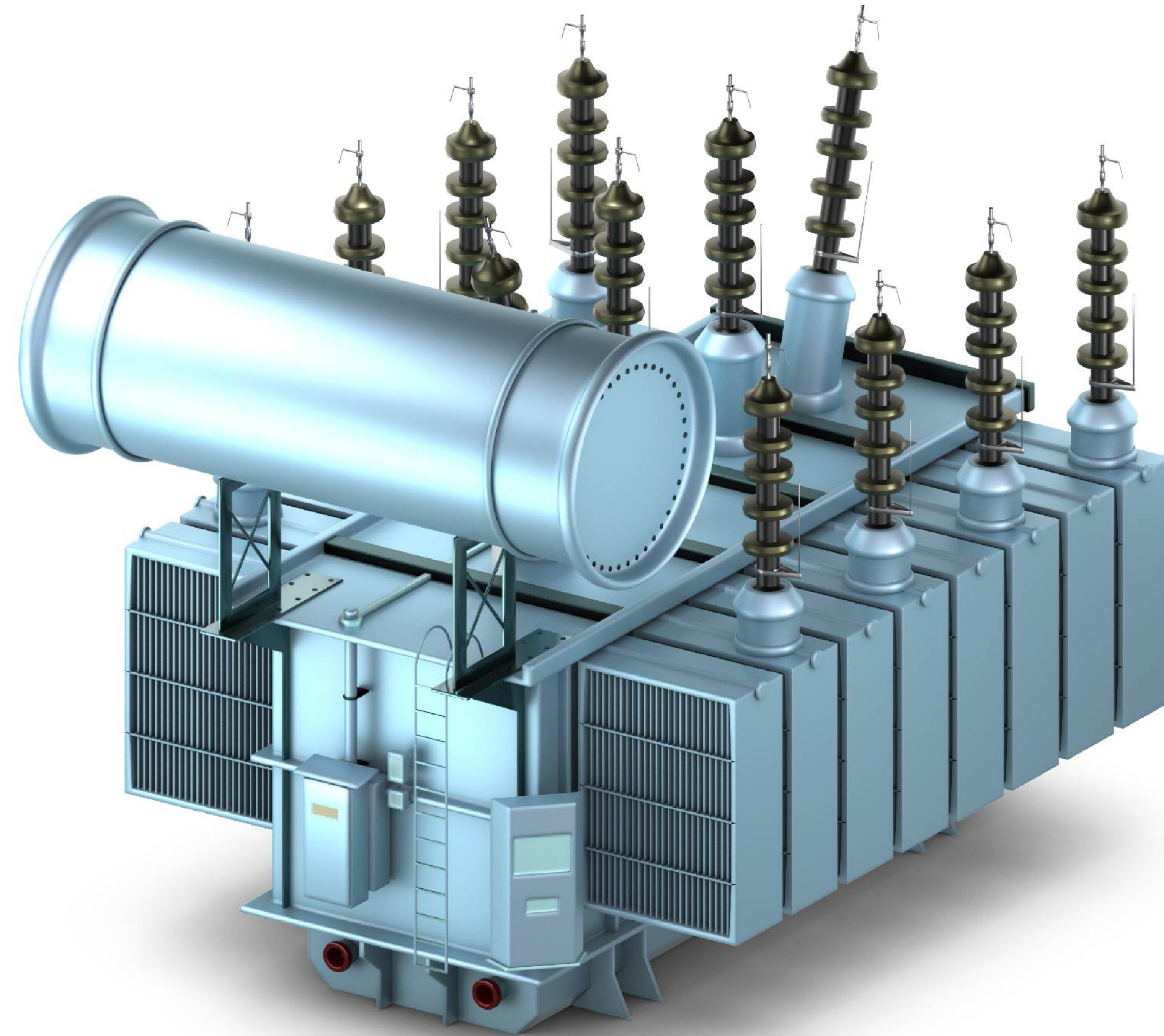
POWER TRANSFORMERS

WHY POWER TRANSFORMERS?

Power Transformers comply with the highest technical specifications as well as national and international standards as IEC, IEEE/ANSI, NEMA, BS & AS.

TECHNICAL SPECIFICATIONS CLASSIFICATION | DESCRIPTION

Type	Core Type
Phase	Single or Three phase
Frequency	50 Hz or 60 Hz
Rated Voltage	3.3 kV up to 400 kV
MVA Capacity	Up to 250 MVA



CONSTRUCTION

- **Tank** → Conventional type, Bell type
- **Oil Preservation Systems** → Conservator Type, N2 seal type, Air seal Type
- **Cooling Method** → ONAN, ONAF, OFAF, OFWF, ODAF

APPLICATIONS

- Generation Step-up Units
- Transmission & Distribution Substations
- Pumping Stations

○ Industrial Applications:

- Oil & Gas Refinery
- Chemicals & Petrochemicals
- Cement Industry
- Steel Industry
- Rolling mills
- Mining Industry
- Desalination Plants

SERVICES

We offer a broad range of services, from preventive to corrective maintenance

REMOTE SERVICES

Monitors and operates the transformer remotely. This tool will allow to monitor the core, winding, fan operation and power output. Besides, it controls the active and reactive powers.

THERMOGRAPHIC TESTS

Seeks to determine hot spots on the transformer's surface.

OIL SAMPLING AND ANALYSIS

Allows to determine oil and insulation health of the transformer.

BUSHINGS CHECK

Checks the bushings health (partial discharges, insulation state, etc).

ON-SITE ANALYSIS AND MAINTENANCE

Develops diagnostics, preventive and corrective maintenance.