



# Cast-Resin Transformers / GLB Load Break Switches

LKE Medium Voltage Systems



Based on the most efficient and reliable cast-resin transformer technology of the last 3 decades, the LKE-TCT series of dry-type transformer is available at the voltage ratings:

**0.4 kV, 10 kV 20 kV, 35 kV.**

### - The LV (Low Voltage) coil

As the 0.4 kV (LV) coil is expected to carry a load in excess of 500 A, LKE's transformers uses copper or aluminium foil to construct the LV coil. This application allows the coil to bear higher currents and also avoids the vertical stresses which are existent in spirally winded wire coils. Therefore LKE transformers have a massive short-circuit withstand capability

### - The HV (High Voltage) coil

The transformer's high voltage coil consists of premium enamel insulated copper wire which are wound with high-precision winding equipment. The coil is casted into epoxy resin via a vacuum casting process which produces epoxy resin insulation with a high degree of reliability. The design methodology for LKE's transformers is based on a sophisticated mathematical calculation in which the different rates of thermal expansion for both the epoxy resin and the coil were taken into account and due allowances were made to ensure the functional integrity of the transformer through a broad temperature range.. Therefore LKE's transformers will reliably operate from -25oC to +155oC.



## LKE-GLBS (12kV SF6 Load Break Switch)

The load break switch is designed for applications within indoor or outdoor medium voltage switchgear panels. It consists of a three position rotary switch mechanism mounted in an epoxy gas tank and sealed within SF6 gas.

The LKE-GLBS has the following features:

- High load breaking capacity (transfer current or maximum breaking capacity).
- Large creep age distances and superior insulation properties.
- Arc proof and tested for internal arcing.
- Maintenance free or low maintenance requirements.
- Compact dimensions.
- Rugged design ensures long mechanical and electrical life.
- Low gas pressure system requiring less than 1 kg of SF6 per switch.



### LCA-G switchboard:

The LCA-G switchboard is a modular system consisting of extensible panels.

- They are ideal for applications where space limitations are severe.
- Their compact dimensions make them ideal for applications within prefabricated mobile or underground substations.
- The modular system makes "LCA-G" the ideal solution in retro-fit or system expansion projects.
- The reduced dimensions and weight of the cubicles allows for ease of handling and prompt installation.
- Its safe and reliable design allows for a wide range of applications:
  - Prefabricated outdoor substations and RMUs
  - Industrial switchboard systems for M.V. power distribution
  - As isolating devices in primary stations.
  - Protection of downstream devices.

Electrical Characteristics	Unit	Value
Rate Voltage	kV	12/17.5
Withstand voltage to earth and between poles	kV	28
Rated current	A	630
Rated short –time current	kA	20
Lightning Impulse withstand voltage to earth and between poles	kV	95

OUTEC CONTROLS cc for LKE (Lauritz Knudsen Electric) medium voltage switchgear

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