

### CAST RESIN TRANSFORMERS





endless transformation

### POWER UP TO 30MVA Voltage up to 52kV Bil 250kV



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Cast resin transformer offers a safer and easier solution for the customer as there is a lower fire potential and a reduction in maintenance requirements. Trafo Elettro cast resin transformers are certified in compliance with IEC 60076-11 for:

#### E3 (environmental class)

transformers suitable for heavy pollution area with humidity above 95%

#### C2 (climatic class)

transformers suitable for operation, transport and storage with ambient temperatures down to -25°c

#### F1 (fire behavior class)

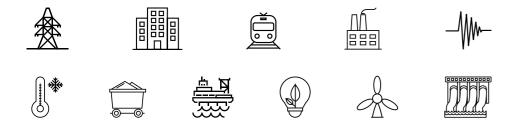
transformers suitable for areas with high risk of fire being self-extinguishing





## **APPLICATIONS**

As the high voltage windings are encapsulated, the transformers are totally screened against moisture, dust and industrial waste common in heavily polluted environments. The result is greater installability, flexibility and a maintenance free lifecycle. Cast Resin Transformers are commonly used for distribution power grids. Their self-extinguishing feature (F1 class), allows the installation inside public buildings like hospitals, hotels and airports where preventing the risk of fire is a must. Cast Resin Transformers can be designed for the installation in railways networks or substations. Their capability to withstand high humidity and polluted atmosphere (E3 class) allows the installation in mines, paper mills, off-shore and on-shore sites, Oil & Gas systems, desalinations plants and cement factories. Cast Resin Transformers are suitable for extreme temperatures (C2 class) allowing the installation in low temperatures areas. A customized design allows the installation in seismic areas or in high vibration conditions like for mobile machines. Cast Resin Transformers are used in renewable energy grids like wind, hydro, solar and geothermal power plants. Other applications are conversion, excitation, testing and earthing.







### MAIN ADVANTAGES OF CAST RESIN TRANSFORMERS

### LONG LIFE

The know-how and experience in the casting process allow a low level of partial discharge.



#### COMPACT DESIGN

Optimized dimensions and terminals arrangement for critical situation of space.



#### HIGH ENVIRONMENTAL RESISTANCE

Specific treatment for magnetic core and frames to withstand the most extreme environmental conditions.

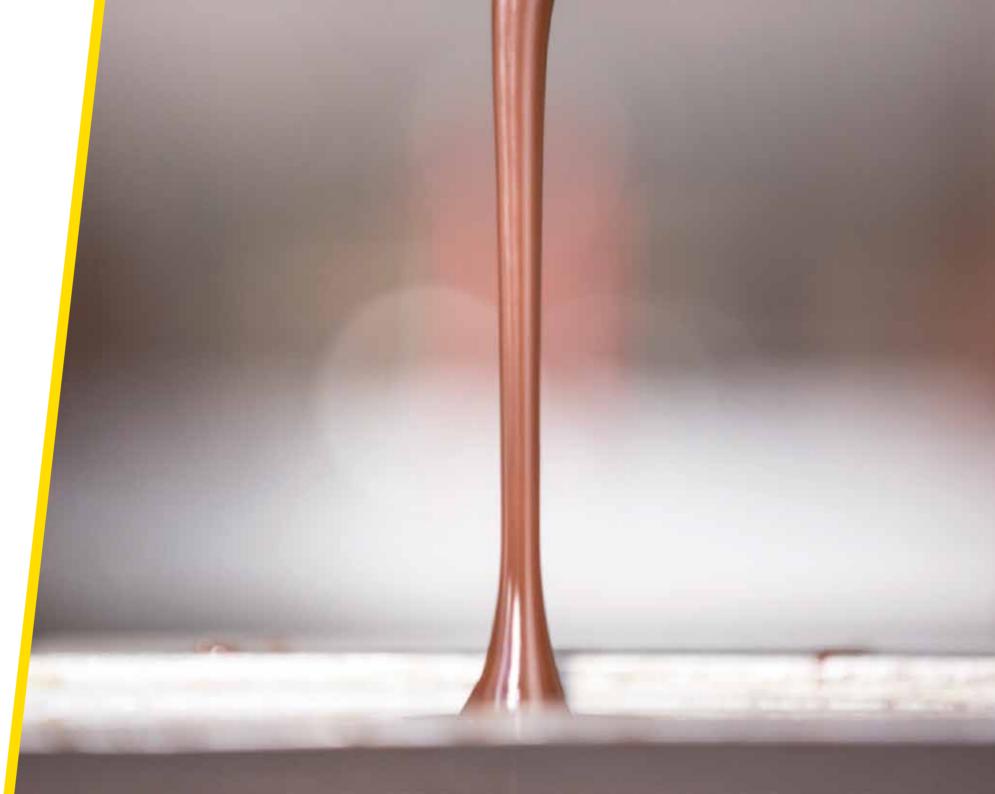


Special design structure for seismic zones or for using in applications with high level vibrations.



#### ECO-FRIENDLY

Research and development of the most performing materials combined with an advanced design for high energy efficiency. Safe to use and easy to dispose.





### ACCESSORIES

Cast resin transformers can be equipped with a wide range of accessories, including:

#### SAFETY PROTECTION DEVICES

- $\cdot\,$  PT100, PTC or infrared sensors for temperature detection
- $\cdot$  Digital devices for monitoring the temperature and trigger alarms or signals
- $\cdot$  Protection boxes with an International Protection rating up to IP54
- $\cdot$  Surge arresters for overvoltages protection

#### SPECIAL TERMINALS CONNECTIONS

- · Plug-in terminals
- $\cdot$  Earthing balls for grounding the transformer during maintenance operations

#### SPECIAL DEVICES

- $\cdot$  Fans for air forced cooling to increase the power up to 40%
- · Electrostatic screen between MV to LV windings
- Anti-vibration dampers for reduction of the transformer's vibrations and therefore of the noise
- $\cdot$  Current transformers for MV or LV sides
- · On load tap changer





# **SERVICE FOR** CAST RESIN TRANSFORMERS

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#### COMMISSIONING AND TRAINING ON SITE

Supervision by skilled technicians during the commissioning operation and training sessions for the maintenance personnel.

#### PACKING AND IMPACT RECORDING

Possibility to ship transformers with seaworthy packing and impact recorder to monitor the status of the transformers during the whole transport.



#### MAINTENANCE

Maintenance on site through Trafo Elettro's local partners or special maintenance at Trafo Elettro's plant.

#### **Ö**° SPARE PARTS

Availability of spare parts with quick delivery.

**TRANSFORMERS HIRE** 

Transformers available in stock to ensure no long-stop of system.

#### STORAGE SERVICE **A**

Availability of a large area to store the transformers for long-term projects or customer's delays.







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