

## Single-phase and Three-phase Autotransformers

All our autotransformers are made to **order**, with tensions, primary and secondary numbers, connections, dimensions, **implementations and options made at the customer's request**.

- Single-phase autotransformers in accordance with standard IEC/EN 61558-2-13
- Three-phase autotransformers in accordance with standard IEC/EN 61558-2-13

### Technical Specifications

- **Service:** continuous
- **Frequency:** 50..60 Hz
- **Ambient temperature:** 40°C
- **Thermal insulation class (depending on power):** F / H
- **Electrical protection class:** I
- **Degree of protection:** IP00
- **Magnetic core:** low core loss
- **Coating:** covered in class H varnish

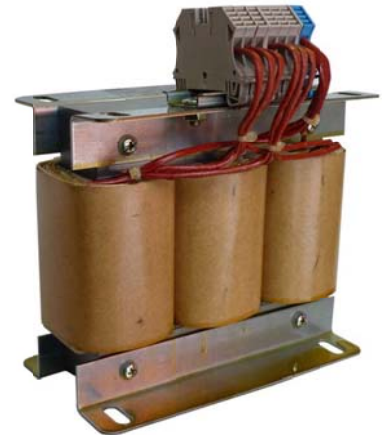
### Some examples of possible uses

- Thermal protection, thermistor
- Magnetic core with grain-oriented (G.O.) steel
- Connection with front clamps, on DIN rail
- For single-phase: fixing with frames, angular, also compliant with DIN 41307 standards
- For three-phase: brackets for vertical, horizontal fixing
- Painted steel container, stainless steel
- Lifting eyebolt

The autotransformers are transformers with only one coil working as primary and secondary, therefore there is no galvanic isolation between the two.

These products are **convenient from an economic point of view** when used in place of a transformer of equal power as the difference in tension between the input and output is lower.

In addition, autotransformers offer higher yields, reduced losses, lower short-circuit voltages and lower voltage variations from vacuum to load.

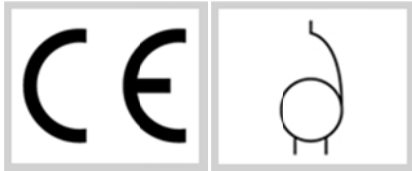


To evaluate its effectiveness, the sizing power must be calculated using the following formula:

$$P_d = [(V_{max} - V_{min}) / V_{max}] \times P_V$$

Where:

- **P<sub>d</sub>** = sizing power
- **P<sub>V</sub>** = nominal power
- **V<sub>min</sub>** = minimum operation voltage
- **V<sub>max</sub>** = maximum operation voltage



CEI E 61558-2-13