



## CONVENTIONAL AND CSP TRANSFORMERS



**Conventional and self-protected transformers** are essential components in medium-voltage power networks, serving both residential and industrial applications. Installed outdoors on poles or substation floors, they feature specially designed bushings for overhead line connections. Immersed in dielectric oil, these units ensure efficient heat dissipation while providing excellent insulation performance.

Rymel transformers are manufactured with high-quality steel tanks coated with durable paint to ensure long service life, even in outdoor or harsh environments.

With 48 years of industry experience, Rymel offers a complete range of transformers designed with safety as a priority.

Certified manufacturing processes ensure reliability and compliance with ISO and BASC quality standards, delivering solutions built with advanced technology and high-quality materials.

**Self-protected transformers** provide enhanced reliability and operational safety for electrical networks. They incorporate built-in protective elements, eliminating the need for additional external devices and reducing installation costs. Unlike conventional designs, self-protected units are capable of isolating the transformer from the network in the event of a fault. Protection is provided against overvoltages, overloads, and external short circuits, and a pilot light indicates switching operations or temporary overload conditions.



## FEATURES

TECHNICAL CHARACTERISTICS		
	ONE PHASE	THREE PHASES
<b>CAPACITY</b>	From 5 kVA up to 500 kVA	From 15 kVA up to 5000 kVA
<b>PHASES</b>	1	3
<b>VOLTAGE</b>	Single/Dual Voltage Up to	
<b>BIL</b>	Up to 250 kV	
<b>WINDING MATERIAL</b>	Aluminum or copper	
<b>COOLING CLASS</b>	ONAN - KNAN	ONAN - KNAN-ONAF - KNAF
<b>FREQUENCY</b>	60 - 50 Hz	
<b>TAP CHANGER</b>	± 2, 2.5% or according to customer requirements.	
<b>TEMPERATURE RAISE</b>	Typically 65/65°C, or according to customer requirements.	
<b>K FACTOR</b>	Up to K20 or according to customer requirements.	
<b>TYPE OF EFFICIENCY</b>	According to DOE 2016	
<b>TYPE OF INSULATION</b>	Mineral or Biodegradable.	
<b>TANK</b>	Cold rolled Steel   Hot rolled steel   stainless steel.	
<b>PAINT SYSTEM</b>	2 layer electrostatic paint	
<b>GASKET</b>	Nitril	
<b>ACCESSORIES</b>	<ul style="list-style-type: none"> <li>High voltage bushings</li> <li>- Low voltage bushings</li> <li>- Pressure relief valve</li> <li>- Oil level: Inside marking or sight glass</li> <li>- Recirculation, drainage and sampling valve</li> <li>- Neutral and tank grounding</li> <li>- Post lifting and fixing device</li> <li>- Nameplate made of high-strength anodized aluminum</li> <li>- Tap changer</li> </ul>	
<b>ADDITIONAL ACCESSORIES</b>	<ul style="list-style-type: none"> <li>-Low- or high-voltage thermomagnetic switch</li> <li>- Internal fuse on the high voltage side.</li> <li>- Fault Indicator Pilot Light.</li> <li>- Operating lever for opening and closing operations.</li> <li>- Surge arresters (optional).</li> </ul>	
<b>STANDARD</b>	IEEE C57.12.00, IEEE 57.12.20	

