



## TTR Cast resin transformers

### ELECTRICAL DATA & DESIGN FEATURES

<b>Rating Power:</b>	<b>Up to 30 MVA</b>
<b>Service:</b>	<ul style="list-style-type: none"> <li>- Distribution</li> <li>- Solar</li> <li>- Windmill</li> <li>- Mining</li> <li>- Off-Shore and On-Shore</li> <li>- Oil &amp; Gas</li> <li>- Hydropower</li> <li>- Step-up / Step-down</li> <li>- Low temperatures installation</li> <li>- High vibration conditions</li> <li>- Mobile substations</li> <li>- Rectifier multiple pulses</li> <li>- Excitation</li> <li>- Converter</li> <li>- Crane duty</li> <li>- Traction</li> <li>- High current</li> <li>- Testing laboratories</li> <li>- Magnetization equipment</li> </ul>
<b>Construction Type:</b>	<ul style="list-style-type: none"> <li>- Simple concentric or multiple concentric</li> <li>- Tier Construction with or w/o intermediate joke</li> </ul>
<b>Cooling:</b>	AN - AF - AN/AF - AFWF - WF
<b>Standards:</b>	Any Standard applicable
<b>Primary Winding:</b>	Single or multi-primary voltage design
<b>Max Working Voltage (U<sub>m</sub>)</b>	Up to 72.5 kV
<b>Voltage Regulation:</b>	<ul style="list-style-type: none"> <li>- No Load Tap Changer (NLTC)</li> <li>- On Load Tap Changer (OLTC)</li> </ul>
<b>Secondary Winding:</b>	Single or multi-secondary windings design
<b>Insulating Level</b>	Up to L.I. 200 kV
<b>Winding Conductors:</b>	Cu or Al
<b>Insulated Class:</b>	B - F - H
<b>Transformer Protection Degree:</b>	Up to IP 66 enclosure
<b>Ambient Temperature:</b>	From (minus) -50°C to MAX required design
<b>Altitude of installation:</b>	Up to 4500 m
<b>Environment–Climate–Fire Class:</b>	E4 – C5 - F1
<b>Installation:</b>	<ul style="list-style-type: none"> <li>- Arctic areas</li> <li>- Desert conditions</li> <li>- Off-Shore/Marine</li> <li>- Seismic Areas</li> <li>- Heavy duty (Steel &amp; metal process)</li> <li>- Special environment (panting process)</li> <li>- Low noise areas</li> <li>- Traction duty</li> <li>- Nuclear</li> </ul>

### ACCESSORIES ON REQUEST

- A wide of state of the art accessories available for:
- Life safety equipments
  - Fire detection
  - Power quality integration
  - Auxiliary & terminal boxes
  - Integration with bus-duct systems
  - Forced cooling
  - Life cycle monitoring unit device
  - Any other special needs if applicable

### SPECIAL & TYPE TEST FILES

- Wide list of special & type tests performed as:
- EMC
  - Lower temperature resistance
  - Temperature rise with consecutive overloads duty cycles
  - Short circuit tests
  - Seismic tests
  - etc...

ALL KIND OF DESIGN IMPLEMENTATION AVAILABLE ON REQUEST (if applicable)

