TRANSFORMER FEATURES

Range – 2 to 100 MVA, 15KV to 230KV voltage class
Loading – Designed to deliver rated current and MVA in all tap positions.
Service – Outdoor
Basic Impulse Level (BIL) – Per ANSI standard
Impedance – ANSI standard
Coils – Aluminum or copper conductor, circular construction, continuous or helical disc, or barrel wound
Cooling Fluid – Type II mineral oil, R-Temp or Silicone oil available up to 15 MVA
Fluid Preservation System – Sealed tank or conservator
Cooling Radiators – Plate type
Gauges and Accessories –
  • Liquid temperature indicator
  • Liquid level gauge
  • Vacuum pressure gauge
  • Drain valves
  • Filter press connections (top and bottom)
  • Automatic pressure relief device
  • Control wiring in flexible conduit
  • Other accessories available
Paint – ANSI 61 enamel on sandblasted surface, other colors available
Nameplate – Stainless steel, engraved
Other – Welded top cover, 19-in manhole covers, provisions on base for skidding, transformer lifting lugs, stainless steel ground pads

OPTIONAL FEATURES

• Reconnectable windings
• Regulating winding on either HV or LV
• Non-standard impedance
• Epoxy paint in your choice of color
• Demountable radiators with isolation valves
• Galvanized radiators
• Terminal throats and chambers
• Sloping roof
• Multi-stage fan cooling for increased MVA
• Other gauges and accessories
• Shock indicator
• Customer-specific controls and relays

LTC FEATURES

Tap Changer Types –
  • Reactive vacuum
  • Resistive
LTC Ranges – Plus or minus 10 percent in thirty-two 5/8 percent steps
LTC Controls – Automatic or manual local control
Other – Position indicator, operation counter, static voltage regulating relay, current transformer for line drop compensation, isolated compartment oil, manual tap operation from ground level, control panel with 3-point latching, automatic door light, power receptacle, anti-condensation heater in control box

ADDITIONAL FEATURES AVAILABLE

• Other tap changer types
• Rigid galvanized conduit wiring
• Remote controls with position indicator
• Provisions for parallel operation
• Potential transformer for voltage signal
• Tap range other than plus or minus 10 percent or steps other than 5/8 percent
• SCADA interfaces for supervisory control
• Loss evaluated designs
• HV Load Tap Changing
## TYPICAL DIMENSIONS, WEIGHTS AND DATA FOR LTC TRANSFORMERS FROM UP TO 15 MVA 69 KV

For larger MVA and higher voltage transformers contact the VTC sales office.

<table>
<thead>
<tr>
<th>KVA</th>
<th>Tank Height (inches)</th>
<th>Tank Length (inches)</th>
<th>Total Depth (inches)</th>
<th>Total Weight (pounds)</th>
<th>Oil Quantity (gallons)</th>
<th>No Load Losses (watts)</th>
<th>Total Losses (watts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,500</td>
<td>112</td>
<td>80</td>
<td>130</td>
<td>30,000</td>
<td>1,200</td>
<td>5,200</td>
<td>24,700</td>
</tr>
<tr>
<td>3,000</td>
<td>118</td>
<td>94</td>
<td>130</td>
<td>36,000</td>
<td>1,500</td>
<td>5,800</td>
<td>28,500</td>
</tr>
<tr>
<td>3,750</td>
<td>124</td>
<td>106</td>
<td>136</td>
<td>45,000</td>
<td>2,000</td>
<td>6,500</td>
<td>35,000</td>
</tr>
<tr>
<td>5,000</td>
<td>130</td>
<td>114</td>
<td>136</td>
<td>55,000</td>
<td>2,400</td>
<td>8,500</td>
<td>45,000</td>
</tr>
<tr>
<td>7,500</td>
<td>134</td>
<td>120</td>
<td>146</td>
<td>71,000</td>
<td>2,900</td>
<td>11,000</td>
<td>62,000</td>
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<tr>
<td>10,000</td>
<td>144</td>
<td>130</td>
<td>152</td>
<td>87,000</td>
<td>3,400</td>
<td>13,500</td>
<td>75,500</td>
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<tr>
<td>15,000</td>
<td>144</td>
<td>144</td>
<td>180</td>
<td>114,000</td>
<td>4,200</td>
<td>17,500</td>
<td>101,000</td>
</tr>
</tbody>
</table>

Data is for estimating purposes only and should never be used for construction. Contact factory for actual dimensions, weights and oil volume.

## SAMPLE OUTLINE FOR 25-50 MVA WITH LOAD TAP CHANGER

25 MVA Base with up to 46.67 MVA capacity. HV is 138,000 volts. Designed for municipality power facility in Illinois. Transformer has Reinhausen RMV-II load tap changer with Beckwith controls.

## MODEL/SN 9895A DESIGN DATA

| KVA: 25000/33000/41670 | 28000/37330/46670 |
| PH: 3 60 Hz 55/65°C Rise |
| No Load Tap: ± 2 x 2.5% | Class: OA/FA/FA |
| Load Tap: ± 16 x 0.625% |
| Impedance: 9.5% Nominal | Weight: 200,452 LBS |
| Winding: Copper |

<table>
<thead>
<tr>
<th>Winding</th>
<th>Volts</th>
<th>BIL</th>
<th>AMPS, @ 46.67 MVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>HV</td>
<td>138000 Delta</td>
<td>550 kVP</td>
<td>195 NOM</td>
</tr>
<tr>
<td>LV</td>
<td>12470 WYE</td>
<td>110 kVP</td>
<td>2161 NOM</td>
</tr>
</tbody>
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