A. GENERAL CHARACTERISTICS

- Design standars: IEC 76
- Transformer type: Hermetically Sealed Totally Oil Filled
- Service Condition: Indoor
- Type of oil: Mineral Oil Class 1 acc. to IEC 296
- Number of phase: 3 Phase
- Frequency: 50 Hz

B. TECHNICAL SPECIFICATION

- Capacity: 4000 kVA
- Primary Voltage: 20 kV
- Secondary Voltage: 0.4 kV
- Vector Group: Dyn5
- Cooling: ONAN
- Temperature Rise - Oil: 60 oC
- Winding: 65 oC
- No load losses at nominal voltage: 4500 Watts
- On load losses at principal tapping: 40000 Watts
- Impedance voltage: 7 %
- Off load current at nominal voltage: 1.7 %
- Temperature Insulation Class: A
- Noise: 60 dB
- Off Circuit Tapping value: +/-2.5%;+/-5%

C. INSULATION CLASS OF THE WINDINGS

Highest system voltage (kV): 24
Impulse test voltage (kV): 125
Applied test voltage (kV): 50

D. EFFICIENCY AND VOLTAGE REGULATION

<table>
<thead>
<tr>
<th>Efficiency ( % )</th>
<th>4/4 load</th>
<th>3/4 load</th>
<th>2/4 load</th>
<th>1/4 load</th>
<th>Voltage Regulation in Volt</th>
<th>in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pf 0.8</td>
<td>98.63</td>
<td>98.89</td>
<td>99.10</td>
<td>99.13</td>
<td>380</td>
<td>5.08</td>
</tr>
<tr>
<td>Pf 1.0</td>
<td>98.90</td>
<td>99.11</td>
<td>99.28</td>
<td>99.30</td>
<td>395</td>
<td>1.24</td>
</tr>
</tbody>
</table>

E. APPROXIMATE WEIGHTS AND DIMENSION

- Total length: 2,815 mm
- Total width: 1,570 mm
- Total height: 2,295 mm
- Weight of oil: 2,010 kg
- Weight of core and winding: 4,145 kg
- Total weight: 8,480 kg
- Approximate Drawing No.: Light Grey RAL 7032
- Painting Colour: Light Grey RAL 7032

The above dimensions and masses are approximate and provided to give a general description of our proposed transformer.
### F. ACCESSORIES
- Name Plate and Rating Plate
- HV Plug in Bushings and LV Porcelain Bushings
- Off Circuit Tap Changer
- Oil Filling Valve
- Oil Draining Valve
- Lifting Lugs
- Grounding Terminal
- Bidirectional Rollers
- Pressure Relief Device Without Contact
- Protection Relay RIS
- Fins Type Radiator

### G. DEVIATIONS / EXCEPTIONS
- None

### H. NOTES
- Use 50mm2 straight plug in connector

### I. LIST OF TEST

<table>
<thead>
<tr>
<th>Routine Test</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Measurement of the resistance value and checking of polarities</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>- Measurement of the ratio on all taps</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>- No load test for measurement of the no load loss and no load current</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>- Short circuit test for determination of the on load loss and impedance</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>- Applied voltage test</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>- Induced voltage test</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type test</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Temperature rise test</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>- Full wave impulses test (1.2 / 50 us)</td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>

Tests other than the above mentioned list needs further confirmation

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<table>
<thead>
<tr>
<th>Revision</th>
<th>Original</th>
<th>Client / Project:</th>
<th>Date</th>
<th>Est.</th>
<th>Chk</th>
<th>App.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>STANDARD 4000kVA (Indoor)</td>
<td>22-Sep-05</td>
<td>FAL</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Jakarta - Indonesia

Joint venture between AREVA TD - PL