



TECHNICAL SPECIFICATIONS

Jakarta - Indonesia



A. GENERAL CHARACTERISTICS

Design standards : IEC 67
 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 : 1000 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 : 1550 Watts
 On load losses at principal tapping : 15000 Watts
 Impedance voltage : 5 %
 Off load current at nominal voltage : 1.8 %
 Temperature Insulation Class : A
 Noise : 56 dB
 Tapping value : +/-2.5%; +/-5%

C. INSULATION CLASS OF THE WINDINGS

| | Primary | Secondary |
|-----------------------------|---------|-----------|
| Highest system voltage (kV) | 24 | 1.1 |
| Impulse test voltage (kV) | 125 | 0 |
| Applied test voltage (kV) | 50 | 3 |

D. EFFICIENCY AND VOLTAGE REGULATION

| | Efficiency (%) | | | | Voltage Regulation | |
|--------|------------------|----------|----------|----------|--------------------|------|
| | 4/4 load | 3/4 load | 2/4 load | 1/4 load | in Volt | in % |
| Pf 0.8 | 97.97 | 98.36 | 98.69 | 98.77 | 384 | 4.10 |
| Pf 1.0 | 98.37 | 98.69 | 98.95 | 99.01 | 394 | 1.61 |

E. APPROXIMATE WEIGHTS AND DIMENSION

Total length : 1,600 mm
 Total width : 1,120 mm
 Total height : 1,765 mm
 Weight of oil : 560 kg
 Weight of core and winding : 940 kg
 Total weight : 2,555 kg
 Approximate Drawing No. :
 Painting Colour : Light Grey RAL 7032

The above dimensions and masses are approximate and provided to give a general description of our proposed transformer.

| | | | | | |
|----------|-----------|--|-------------------|------|-----------|
| Revision | Original | | Client / Project: | No | : D 10385 |
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| Est. | SGT | | | | |
| Chk | | | | | |
| App. | | | | | |



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F. ACCESSORIES

- Name Plate and Rating Plate
- HV Plug in Bushings and LV Porcelain Bushings
- Off Circuit Tap Changer
- Oil Filling Plug
- 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

- None

I. LIST OF TEST

Routine Test :

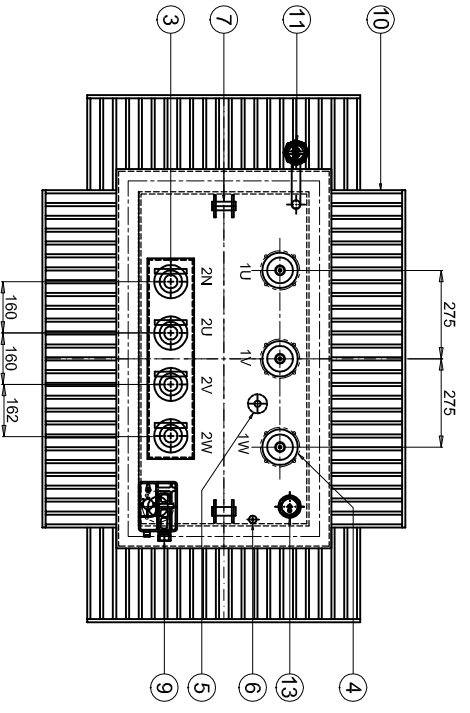
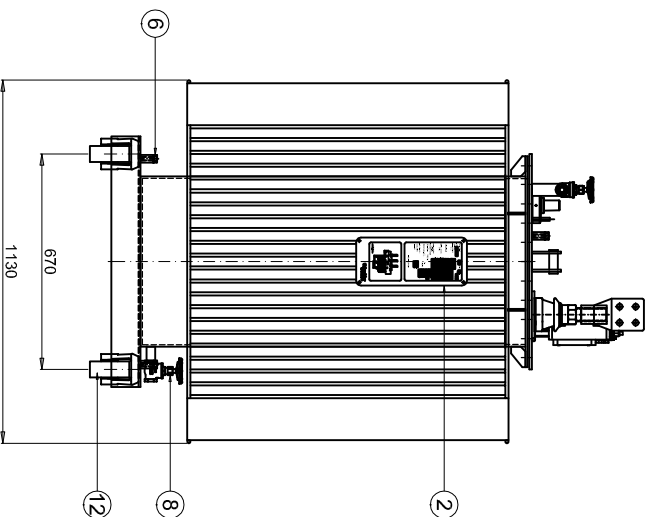
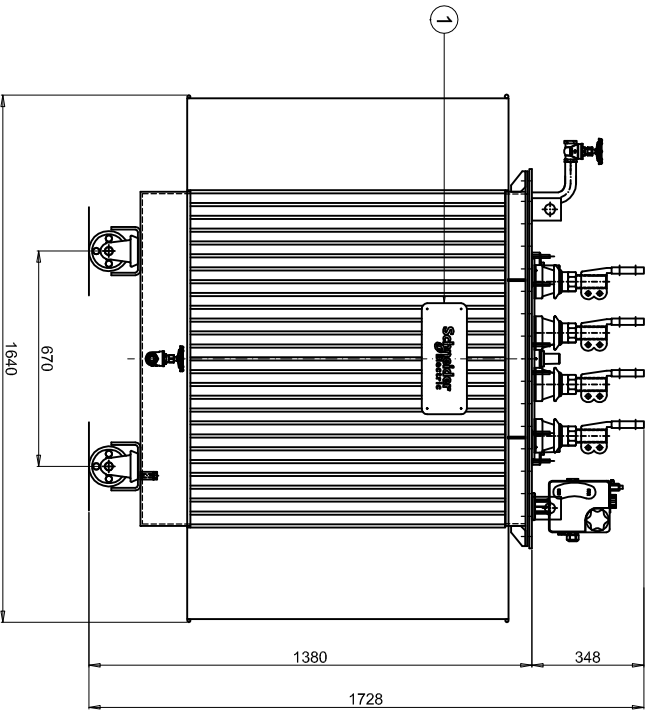
- | | Yes | No |
|--|-------------------------------------|--------------------------|
| - Measurement of the resistance value and checking of polarities : | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| - Measurement of the ratio on all taps : | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| - No load test for measurement of the no load loss and no load current : | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| - Short circuit test for determination of the on load loss and impedance : | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| - Applied voltage test : | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| - Induced voltage test : | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Type test :

- | | | |
|---|--------------------------|-------------------------------------|
| - Temperature rise test : | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| - Full wave impuls test (1.2 / 50 us) : | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Tests other than the above mentioned list needs further confirmation

| | | | | | |
|----------|-----------|--|-------------------|------|-----------|
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| Est. | SGT | | | | |
| Chk | | | | | |
| App. | | | | | |



NOTES :

1. NAME PLATE
2. RATING PLATE
3. LV BUSHINGS
4. HV PLUG IN BUSHINGS
5. OFF CIRCUIT TAP CHANGER
6. EARTHING TERMINAL
7. LIFTING LUGS
8. DRAINING VALVE
9. PROTECTION RELAY RIS
10. RADIATOR
11. FILLING VALVE
12. BI DIRECTIONAL ROLLER
13. PRESSURE RELIEF DEVICE WITHOUT CONTACT

ELECTRICAL CHARACTERISTICS

| | |
|-------------------|---------------------|
| TYPE | : OUTDOOR / ONAN |
| RATING | : 1000 KVA |
| PRIMARY VOLTAGE | : 20 kV ± 2.5%, ±5% |
| SECONDARY VOLTAGE | : 0.4 kV |
| VECTOR GROUP | : DYN5 |
| APPR WEIGHT | : 2420 KG. |
| OIL WEIGHT | : 580 KG. |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|----------------------|----|----|---|---|---|---|---------|---------|-------|-----------------|---------|----------------------|------|--|------|--|-------|------|----------|----|------------|-----|-------------|-----|--------------------------|--|
| A | B | C | D | E | F | G | H | | | | | | | | | | | | | | | | | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | | | | | | | | | | | | | | | | | | | | |
| 9 | 10 | 11 | 12 | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">PROJECT</td> <td style="width: 50%;">PRIVATE</td> </tr> <tr> <td>TITLE</td> <td>OUTLINE DRAWING</td> </tr> <tr> <td>REMARKS</td> <td>TRANSFORMER 1000 KVA</td> </tr> <tr> <td>DATE</td> <td></td> </tr> <tr> <td>SIGN</td> <td></td> </tr> <tr> <td>SCALE</td> <td>DATE</td> </tr> <tr> <td>DRAWN BY</td> <td>BW</td> </tr> <tr> <td>CHECKED BY</td> <td>Eha</td> </tr> <tr> <td>APPROVED BY</td> <td>SJM</td> </tr> <tr> <td>Distribution Transformer</td> <td></td> </tr> </table> | | | | | | | | PROJECT | PRIVATE | TITLE | OUTLINE DRAWING | REMARKS | TRANSFORMER 1000 KVA | DATE | | SIGN | | SCALE | DATE | DRAWN BY | BW | CHECKED BY | Eha | APPROVED BY | SJM | Distribution Transformer | |
| PROJECT | PRIVATE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TITLE | OUTLINE DRAWING | | | | | | | | | | | | | | | | | | | | | | | | | | |
| REMARKS | TRANSFORMER 1000 KVA | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DATE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SIGN | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SCALE | DATE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DRAWN BY | BW | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CHECKED BY | Eha | | | | | | | | | | | | | | | | | | | | | | | | | | |
| APPROVED BY | SJM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Distribution Transformer | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| L9949 G105 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |