

Technical Data of Oil-immersed Transformer
Hermetically Sealed Type

Model (ordering code) : OTCO35-22K-0400K-A

Reference standard : IEC 60076 , TIS 384-2543

Ratings

Rated power : 400 (kVA)
 Number of phases : 3 (Ø)
 Rated frequency : 50 (Hz)
 Rated primary voltage (± 2x2.5%) : 22000 (V)
 Rated secondary voltage : 400 / 230 (V)
 Rated primary current : 10.50 (A)
 Rated secondary current : 577 (A)
 Insulation class : A (105) (°C)
 Connection symbol : Dyn11

Service conditions and installation

Ambient temperature : 40 (°C)
 Altitude (above sea level) : ≤ 1000 (m)
 Type of cooling : ONAN
 Installation method : Outdoor

Performance of transformer at 75°C

No load loss : 850 (W)
 Load loss : 4600 (W)
 Short-circuit impedance : 4.0 (%)
 Efficiency at 50% of rated power (P.F.= 1.0) : 99.01 (%)
 Efficiency at 100% of rated power (P.F.= 1.0) : 98.66 (%)
 Voltage regulation at full load (P.F.= 1.0) : 1.22 (%)
 Sound level : 56 (dB(A))

Max. Temperature rise of top oil at full load : 60 (K)
 Max. Temperature rise of winding at full load : 65 (K)

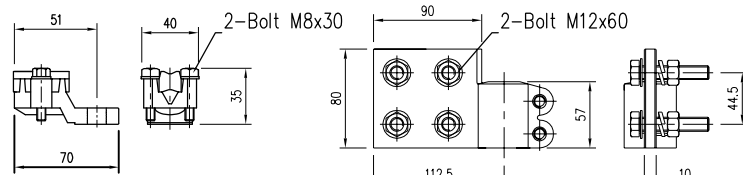
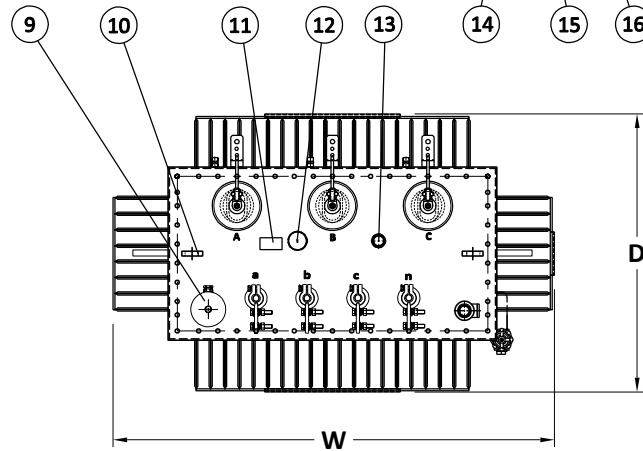
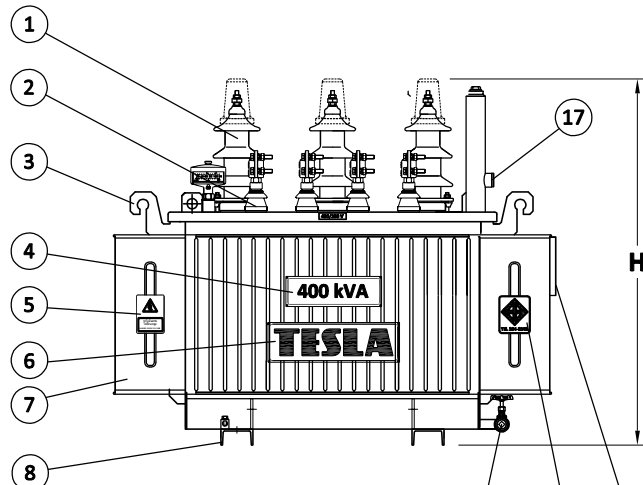
Type of HV & LV windings conductor : Copper
 Type of insulating liquid and cooling liquid : Mineral oil

Routine tests

Measurement of insulation resistance
 Measurement of winding resistance (IEC 60076-1)
 Measurement of voltage ratio and check of phase displacement (IEC 60076-1)
 Measurement of no-load loss and no-load current (IEC 60076-1)
 Measurement of load loss (IEC 60076-1)
 Measurement of short-circuit impedance (IEC 60076-1)
 Induced overvoltage withstand test (IEC 60076-1) and (IEC 60076-3)
 Applied voltage test (IEC 60076-1) and (IEC 60076-3)
 Oil dielectric Breakdown voltage test (IEC 60156)
 Physical leakage test (with overpressure 5 psi)

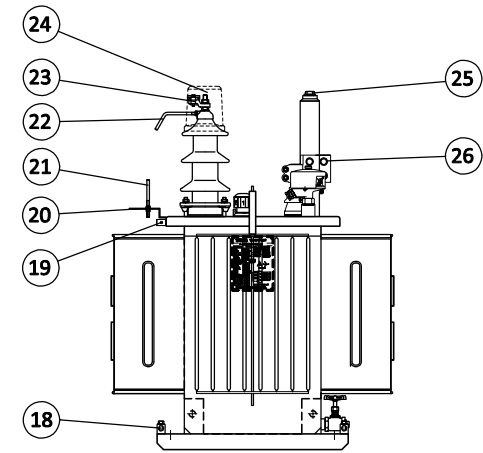
Type tests

Partial Discharge (PD) test (IEC 60076-3)
 Lightning impulse (LI) test (IEC 60076-3)
 Temperature-rise test (IEC 60076-2)



High voltage terminal

Low voltage terminal



| No. | Description | No. | Description |
|-----|--------------------------------|-----|--------------------------------------|
| 1 | High voltage bushing | 14 | Oil drain valve |
| 2 | Low voltage bushing | 15 | TIS. 384-2543 sign |
| 3 | Lifting lugs | 16 | Nameplate |
| 4 | Capacity sign | 17 | Oil level gauge |
| 5 | Danger high voltage sign | 18 | Earthing terminal |
| 6 | Trade mark sign | 19 | Earthing terminal for surge arrester |
| 7 | Corrugated radiators | 20 | Bracket for surge arrester |
| 8 | Foundations of transformer | 21 | Earthing terminal for arcing horn |
| 9 | Thermometer with dual contacts | 22 | Arcing horn |
| 10 | Lifting eyes | 23 | High voltage terminal (see details) |
| 11 | Instruction for tap changer | 24 | Bird guard cap |
| 12 | Off-load tap changer | 25 | Oil filling plug |
| 13 | Pressure relief device | 26 | Low voltage terminal (see details) |

Approximate overall dimensions, oil quantity and weight

| W (mm) | D (mm) | H (mm) | Oil quantity (Litre) | Total weight (kg) |
|--------|--------|--------|----------------------|-------------------|
| 1390 | 900 | 1150 | 215 | 1215 |

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