# HIGH VOLTAGE COMPONENTS SERIES

# **35KV**

Oil-immersed transformer



## Overview

This series of products are more advanced in design and have been greatly improved in material, structure and technology. High and low pressure clamps are made of steel strip or upper beam and side beam, forming a strong frame structure to enhance the clamping force of iron core and its resistance to transportation impact. Strong short circuit resistance, beautiful appearance, reliable operation, low loss, low noise, reach the advanced level of similar products abroad.





### Model meaning



#### **Execution standard**

| GB 1094.1~2 | 《General Provisions Of Power Transformers》  |  |  |  |  |
|-------------|---|--|--|--|--|
|             | 《Temperature Length Of Oil-Immersed Transformer》  |  |  |  |  |
| GB 1094.3   | $\langle\!\langle \text{Insulation Level, Insulation Test And External Insulation Air Gap}\rangle\!\rangle$ |  |  |  |  |
| GB 1094.5   | 《Capacity Of Electrical Transformers To Withstand Short Circuits》   |  |  |  |  |
| GB/T 6451   | 《Technical Parameters And Requirements Of Oil-Immersed Power Transformer》                                   |  |  |  |  |
| GB/T 15164  | 《Load Guide For Oil-Immersed Power Transformers》  |  |  |  |  |
| GB2536      | 《Transformer Oil》   |  |  |  |  |

#### Conditions of use

- $\bullet$  Ambient Temperature: Maximum +40°C , Minimum -25°C (outdoor) / -5°C (indoor).
- Altitude: Not exceeding 1000 meters above sea level.
- Relative Humidity: Daily average ≤ 95%, Monthly average ≤ 90%.
- Seismic Intensity: Not exceeding 8 degrees.
- Installation Environment: Free from fire, explosion hazards, severe pollution, chemical corrosion, or violent vibration.
- Cooling Method: ONAN (Oil Natural Air Natural) or ONAF (Oil Natural Air Forced).
- Rated Frequency: 50Hz or 60Hz.
- System Voltage Level: Rated voltage 35kV, matching system requirements.

#### Product Features of 35kV Oil-Immersed Transformer

| Feature                          | Description   |  |  |  |  |
|----------------------------------|---|--|--|--|--|
| High Efficiency                  | The transformer adopts low-loss silicon steel sheets and optimized design to achieve low no-load loss and low load loss.              |  |  |  |  |
| Excellent Insulation Performance | High-quality insulating materials and advanced vacuum drying and oil-filling processes ensure reliable insulation.                    |  |  |  |  |
| Strong Overload Capacity         | The transformer is designed to withstand short-term overloads and has strong thermal stability.                                       |  |  |  |  |
| Low Noise                        | Optimized magnetic circuit design and quality materials reduce operational noise effectively.   |  |  |  |  |
| Long Service Life                | High mechanical strength, strong resistance to mechanical impact and environmental adaptability, ensuring long-term stable operation. |  |  |  |  |





# S13 35kV Oil immersed power transformer

| Rated capacity (kVA) | Voltage combinationand tap range  |                                |                   | Vector        | No-load | Load loss | No-load        | Short circuit    |
|----------------------|---|--------------------------------|-------------------|---------------|---------|-----------|----------------|------------------|
|                      | High pressure<br>(kV)   | High pressure<br>tap range (%) | Low pressure (kV) | group symbol  | loss(W) | (W)       | current<br>(%) | impedance<br>(%) |
| 50                   | -<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>- | ±5%<br>±2×2.5%                 | 0.4               | Dyn11<br>Yyn0 | 130     | 1200/1140 | 1.30           | 6.5              |
| 100                  |   |                                |                   |               | 185     | 2010/1910 | 1.10           | 6.5              |
| 125                  |   |                                |                   |               | 215     | 2370/2260 | 1.10           | 6.5              |
| 160                  |   |                                |                   |               | 225     | 2820/2680 | 1.00           | 6.5              |
| 200                  |   |                                |                   |               | 270     | 3320/3160 | 1.00           | 6.5              |
| 250                  |   |                                |                   |               | 320     | 3950/3760 | 0.95           | 6.5              |
| 315                  |   |                                |                   |               | 385     | 4750/4530 | 0.95           | 6.5              |
| 400                  |   |                                |                   |               | 465     | 5740/5470 | 0.85           | 6.5              |
| 500                  |   |                                |                   |               | 545     | 6910/6580 | 0.85           | 6.5              |
| 630                  |   |                                |                   |               | 665     | 7860      | 0.65           | 6.5              |
| 800                  |   |                                |                   |               | 785     | 9400      | 0.65           | 6.5              |
| 1000                 |   |                                |                   |               | 920     | 11500     | 0.65           | 6.5              |
| 1250                 |   |                                |                   |               | 1120    | 13900     | 0.60           | 6.5              |
| 1600                 |   |                                |                   |               | 1350    | 16600     | 0.60           | 6.5              |

#### Note:

## SZ11 35kV On-load tap change oil immersed power transformer

| Rated capacity<br>(kVA) | Voltage combination and tap range |                                |                          | Vector group | No-load | Load loss | No-load        | Short circuit    |
|-------------------------|-----------------------------------|--------------------------------|--------------------------|--------------|---------|-----------|----------------|------------------|
|                         | High pressure<br>(kV)             | High pressure<br>tap range (%) | Low pressure (kV)        | symbol       | loss(W) | (W)       | current<br>(%) | impedance<br>(%) |
| 2000                    | - 35                              | ±3×2.5                         | 6.3 10.5                 | Yd11         | 2300    | 19240     | 0.80           | 6.5              |
| 2500                    |                                   |                                |                          |              | 2720    | 20640     | 0.80           | 6.5              |
| 3150                    | -<br>-<br>- 35~38.5<br>-          | ±3×2.5                         | 6.3<br>10.5              |              | 3230    | 24710     | 0.72           | 7.0              |
| 4000                    |                                   |                                |                          |              | 3870    | 29160     | 0.72           | 7.0              |
| 5000                    |                                   |                                |                          |              | 4640    | 34200     | 0.68           | 7.0              |
| 6300                    |                                   |                                |                          |              | 5630    | 36770     | 0.68           | 7.5              |
| 8000                    |                                   |                                |                          | -<br>Ynd11   | 7870    | 40610     | 0.60           | 7.5              |
| 10000                   |                                   |                                |                          |              | 9280    | 48050     | 0.60           | 8.0              |
| 12500                   | -<br>35~38.5<br>-                 | ±3×2.5                         | 6.3<br>6.6<br>10.5<br>11 |              | 10940   | 56860     | 0.56           | 8.0              |
| 16000                   |                                   |                                |                          |              | 13170   | 70320     | 0.54           | 8.0              |
| 20000                   |                                   |                                |                          |              | 15570   | 82780     | 0.54           | 8.0              |

<sup>1,</sup> according to the requirements of high voltage transformer tap range for  $\pm 2 \times 2.5\%$ .

<sup>2,</sup> other capacity product performance parameters, determined by the user in consultation with the manufacturer.