

ZFW20

126/145



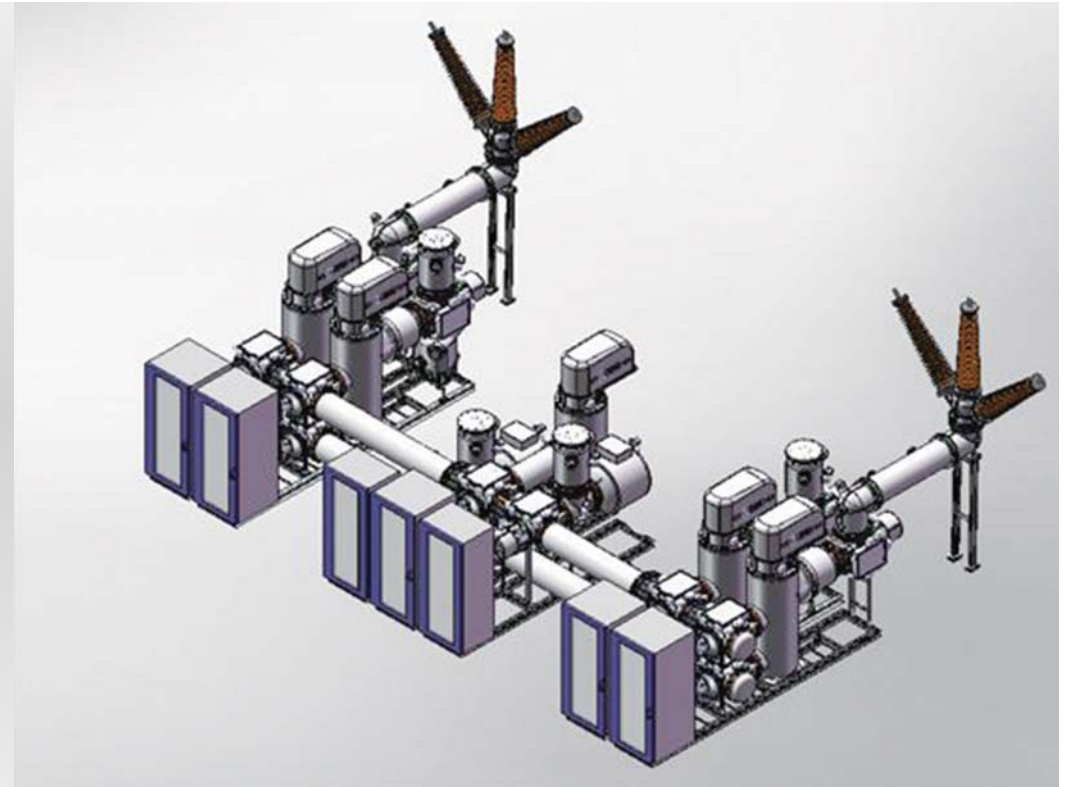
## INTRODUCTION

ZFW20-126/145 GIS/HGIS is a new generation product independently developed by our company with proprietary intellectual property rights. Advanced self-energy arc extinguishing technology and optimized insulation design in electric field are highly integrated in the product design. This type of GIS has passed all the type tests of AQTC in China, and gained test certification (of 50Hz) from KEMA, the Netherlands and certification (of 60Hz) from CESI, Italy. These type test certificates indicate that the insulation level, short-circuit capacity and current-carrying capability of the products are advanced in the whole industry.

The three phases of a whole ZFW20-126/145 GIS are housed in one common enclosure, with SF<sub>6</sub> as insulation and switching medium, suitable for both indoor and outdoor operation. Compared with other similar products, the GIS are designed in highly integrated modules with more concise and compact structure. They are securer and more reliable for operation, convenient for maintenance and use, and able to run in limited construction land of urban substations.

The authoritative domestic and international testing certification, advanced and mature modern manufacturing technology, and strict quality control system all guarantee the quality of our products.

Our company always adheres to the market-oriented and custom-centered business idea. We are capable of providing the best service during the whole project.



ZFW20-126/145 GIS/HGIS

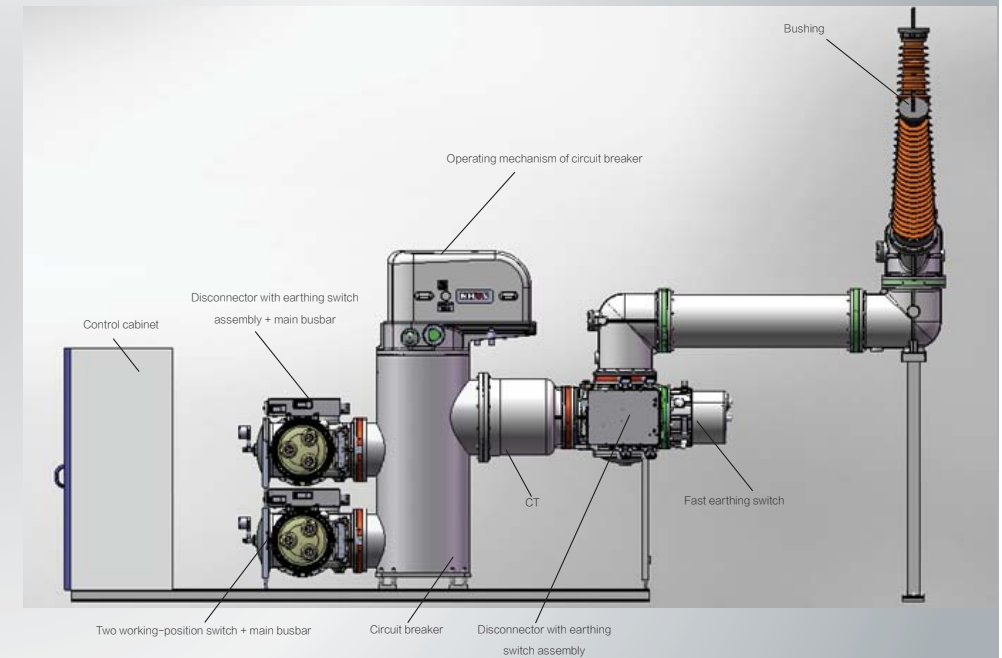
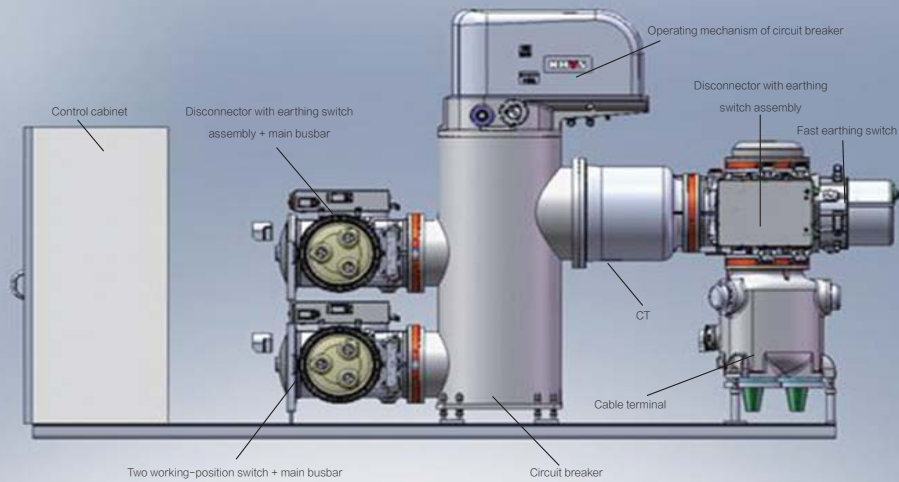
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## OVERALL STRUCTURE

Generally, GIS/HGIS is composed of circuit breaker, disconnecter, earthing switch, fast earthing switch, CT, busbar, bellows, cable terminal or bushing, and control cabinet, etc.. As per the requirement of electrical design, components like CT, surge arrester, and electroscope, etc., can be placed in the composite equipment. Intelligent components can also be inserted into the control cabinet.

ZFW20-126/145 products are smaller and lighter with all single units housed in a high-strength aluminum alloy casted or welded enclosure and with heteromorphosis casting conductors. All insulators of the products are casted by the imported modern casting production lines in our company, guaranteeing both the electrical and mechanical performance of insulating parts. Excellent electrical design and modern manufacturing technology make excellent technical parameters and performance index possible.



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# MAIN TECHNICAL PARAMETERS

| Item                                                      |                                           | Unit                                      | Technical data                   |     |
|-----------------------------------------------------------|-------------------------------------------|-------------------------------------------|----------------------------------|-----|
| Rated voltage                                             |                                           | kV                                        | 126                              | 145 |
| Rated current                                             |                                           | A                                         | 3150                             |     |
| Rated frequency                                           |                                           | Hz                                        | 50                               |     |
| Rated power frequency withstand voltage 1 min             | Phase to earth                            | kV                                        | 230                              | 275 |
|                                                           | Across open contacts                      |                                           | 230(+73)                         | 315 |
| Rated lightning impulse withstand voltage peak            | Phase to earth                            | kV                                        | 550                              | 650 |
|                                                           | Across open contacts                      |                                           | 550 ( +103 )                     | 750 |
| Rated short circuit breaking current                      |                                           | kA                                        | 40                               |     |
| Rated short circuit making current                        |                                           | kA                                        | 100                              |     |
| Rated short time withstand current and duration time      |                                           | kA/s                                      | 40/4                             |     |
| Rated peak withstand current                              |                                           | kA                                        | 100                              |     |
| Radio interference voltage                                |                                           | μ V                                       | 500                              |     |
| SF <sub>6</sub> gas pressure<br>(at 20℃ gauge pressure)   | CB gas compartment                        | MPa                                       | 0.6                              |     |
|                                                           | Other gas compartments                    |                                           | 0.5                              |     |
| SF <sub>6</sub> gas leakage rate for each gas compartment |                                           | %/year                                    | 0.5                              |     |
| SF <sub>6</sub> gas humidity                              | Gas compartment with arcing decomposer    | Acceptance value                          | μ L/L                            | 150 |
|                                                           |                                           | Permissible value for long time operation |                                  | 300 |
|                                                           | Gas compartment without arcing decomposer | Acceptance value                          |                                  | 250 |
|                                                           |                                           | Permissible value for long time operation |                                  | 500 |
| CB operating mechanism                                    |                                           |                                           | Spring operating mechanism       |     |
| DS operating mechanism                                    |                                           |                                           | Motor operating mechanism        |     |
| ES operating mechanism                                    |                                           |                                           | Motor operating mechanism        |     |
| FES operating mechanism                                   |                                           |                                           | Motor spring operating mechanism |     |
| Applicable standards                                      |                                           |                                           | GB、DL、IEC                        |     |

Note: special orders can be made if customer's requirement exceeds above-mentioned technical data.