ZF15

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Gas Insulated Metal Enclosed Switchgear (GIS/HGIS)

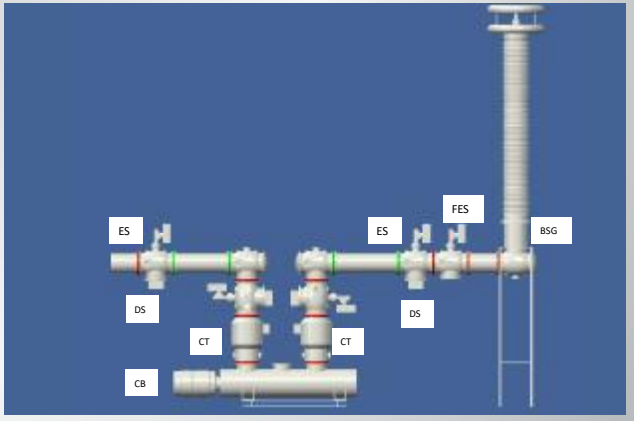
New Northeast Electric Group High Voltage Switchgear Co., Ltd

Overview

Type ZF15–420 gas insulated metal enclosed switchgear is a new type of GIS product developed by NHVS with small footprint, compact structure, and high reliability.
The product has passed all the type tests at the KEMA (Netherland) High Voltage Large Capacity Test Station, the Quality Testing Center of High Voltage Electrical Equipment of Machinery Industry and the National High Voltage Electrical Equipment Quality Supervision and Inspection Center (Xi'an High Voltage Apparatus Research Institute Co.Ltd). Its technical performance has reached the international advanced level of similar products.

Overall Structure

Type ZF15–420 GIS is composed of phase segregated components. Circuit breaker, Current transformer, Disconnector, Earthing switch, Fast earthing switch, Bus bar, Bushing and other elements. which adopts standardized module layout. with flexible arrangement, easy for extension, can meet the various schemes requirement.



ZF15–420 GIS Main Components

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Main Features

●GIS components are standardized modules, components interface unity, strong generality, can be combined according to various main wiring and layout, also can be reserved for extension interface, to facilitate future extension of existing projects.

●GIS equipment and its supports can be fixed by chemical anchors, which is easy to install, reliable and suitable for harsh climatic conditions, and does not require embedded steel plates in the foundation, reducing the cost of the foundation and the difficulty of construction.

●In the GIS busbar enclosure temperature compensation, using parallel compensation expansion joint bus to compensate, which has the characteristics of large compensation volume and high reliability.

●Aluminum enclosure without eddy-current loss. it is light weight with good conductivity and high corrosion risistance.

●The circuit breaker for GIS is a new type of compact circuit breaker, the arc-extinguishing chamber adopts the compact direct movement structure, the operating power is small and the current breaking capacity is strong.

●GIS outgoing line bushing are available in either porcelain or composite materials according to user' s requirements.

●It is easy and convenient to assembly HGIS by correct combination with circuit breaker, disconnector, earthing switch, current transformer, bushing and other standard structural modules.

Main Technical Parameters

Sn	Item			Unit	Technical data
1	Rated voltage			kV	420
2	Rated current			A	4000
3	Rated frequency			Hz	50
4	1 min rated power frequency withstand voltage		Phase to earth	kV	650
			Across open contact		815
5	Rated lightning impulse withstand voltage peak value		Phase to earth	kv	1425
			Across open contact		1425(+240)
6	Rated switching impulse withstand voltage peak value		Phase to earth	kv	1510
			Across open contact		900(+345)
7	Rated short circuit breaking current			kA	50,63
8	Rated short circuit making current			kA	135，171
9	Rated short time withstand current and duration time			kA/s	50/3，63/3
10	Rated peak withstand current			kA	135，171
11	Radio interference voltage			μV	500
12	SF_6 gas pressure (at 20℃gauge pressure)		CB gas chamber	MPa	0.6
			Other gas chamber		0.5，0.4
13	SF_6 gas leakage rate for each gas compartment			%/year	0.5
14	SF_6 gas humidity	CB gas chamber	Acceptable value	μL/L	150
			Permissible value for long time operation		300
		Other gas chamber	Acceptable value		250
			Permissible value for long time operation		500
15	Circuit breaker operating mechanism				Hydraulic spring operating mechanism
16	Disconnector operating mechanism				Motor operating mechanism
17	Earthing switch operating mechanism				Motor operating mechanism
18	Fast earthing switch operating mechanism				Motor spring operating mechanism
19	Applicable standards				IEC

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