

## KGH1-40.5 Fixed AC Metal-clad Switchgear

## Summary

KGH1-40.5 Fixed AC Metal-clad Switchgear is designed and developed on XGN17 switchgear. It conforms with GB3906, GB/T 11022, DL/T 593 and other standards and relevant requirements of this kind of product.



Ambient Condition

1 Environmental air temperature: upper limit is +40 °C , the mean value in 24h is no more than 35 °C , lower limit is -25 °C ;

2 Altitude  $\leq 1000\text{m}$ ;

3 Relative humidity: daily average value  $\leq 95\%$ ,  
monthly average value  $\leq 90\%$ ;

4 Vapor pressure: daily mean relative humidity  $\leq 2.2$ kPa,  
monthly mean relative humidity  $\leq 1.8$ kPa;

5 Earthquake intensity: not exceeding 8 degree;

6 Installation site: without fire risk, explosion hazard, heavy pollution, chemical corrosion and violent vibration。

## Model

The diagram illustrates the components of a metal-clad switchgear model code. The code is shown as: **K G H 1- 40.5 / - □ - □**. Brackets connect each part of the code to its meaning:

- K**: Metal-clad
- G**: Fixed
- H**: Corporate identify
- 1-**: Design serial No.
- 40.5**: Rated voltage (kV)
- /**: Rated current (A)
- : Rated short-time breaking current (kA)
- : (Two empty boxes representing additional specifications)

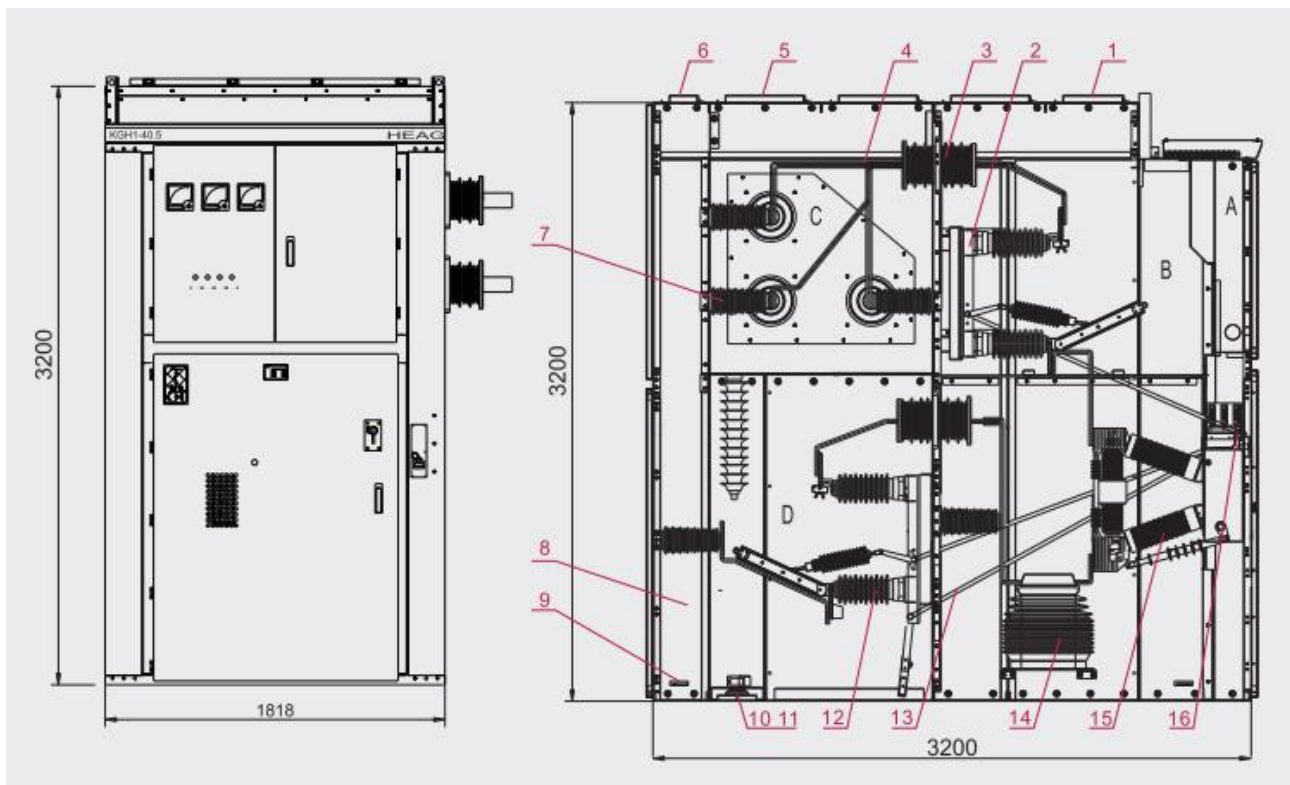
## Technical Parameters

No.	Item		Unit	Technical parameters
1	Rated voltage		kV	40.5
2	Rated current		A	630, 1250, 2000, 2500
3	Rated frequency		Hz	50
4	Rated peak withstand current		kA	50, 63, 80
5	Rated short-time withstand current			20, 25, 31.5
6	Duration of rated short-circuit withstand current		s	4
7	Rated short circuit breaking current		kA	20, 25, 31.5
8	Rated short circuit making current			50, 63, 80
9	Rated insulation level	1min P.F. Withstand Voltage	kV	Phase to phase, phase to ground/ isolating fracture: 95/118
		Lightning impulse withstand voltage		Phase to phase, phase to ground/ isolating fracture: 185/215
10	Voltage of auxiliary control loop	1min P.F. Withstand Voltage		DC220/110, AC220/110
		Lightning impulse withstand voltage		2000
11	Outline dimension（W×D×H）			1818×3200×3200
12	Rated operation sequence			O-0.3s-CO-180s-CO
13	Loss category for running continuity			LSC2B

## Main Feature

1. It adopts integrated solid structure design, and the product has beautiful appearance;
2. The product is completely formed by Al-Zn coated steel plate after multiple bending processed, It has the characteristics of high precision, strong rigidity and good corrosion resistance;
3. Equipped with ZN12-40.5 vacuum circuit breaker that has reliable performance;
4. The normal operation of the switchgear, including opening and closing of breaker switch and the upper and lower disconnecter, can be carried out under the closing condition of the high voltage compartment door is open;
5. Conventional relay protection or integrated microprocessor-based protection device can be configured. Wall bushing used for internal pressure outside the shielding structure, avoid discharge local high field, effective suppression of solid insulation thermal breakdown and electrochemical breakdown in AC battery under the action, so as to improve the life of insulation, anti aging effect.

## Basic Structure



A. LV instrument compartment

B. CB compartment

C. Busbar compartment

D. Cable compartment

1. Releasing plate of the CB compartment    2. The upper disconnector    3. Bushing

4. Branch busbar assembly    5. Releasing plate of the Busbar compartment

6. Releasing plate of the Cable compartment    7. Insulator    8. Power cable

9. Earthing busbar assembly    10. Cable clamp    11. The tower sealing ring

12. The lower disconnector    13. Actuating linkage    14. Current transformer

15. Vacuum circuit breaker    16. Operation mechanism