



GPN1 □ - 40.5kV Removable AC Metal-clad Enclosed Switchgear

■ Summary

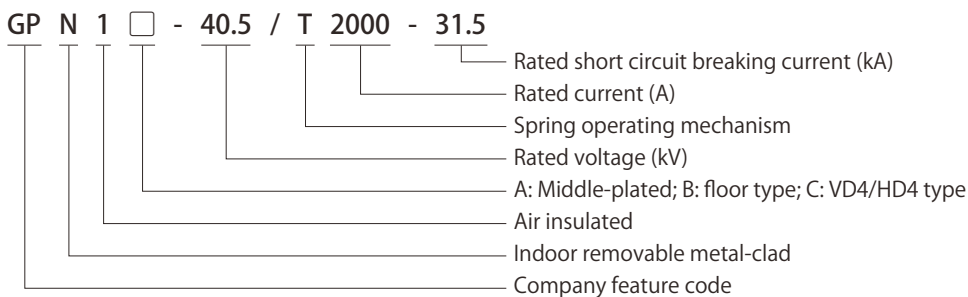
GPN1-40.5kV removable AC metal-clad switchgear (short for switchgear as below) applies to 40.5kV, 3 phase, AC and 50/60Hz electrical power network for receiving and distributing power energy and also for control, monitor and protection. It is applicable in general power system and occasions with frequent operation. The product conforms to GB 3906 "3~35kV AC Metal Enclosed Switchgear", GB/T 11022 "The common technical clauses of High Voltage Switchgear and controlgear Standard", DL/T 404-1997 "Order Technical term of Indoor AC High Voltage Switchgear" and IEC-298 "1~52kV AC Metal Enclosed Switchgear and Controlgear standard".



■ Ambient condition

Ambient temperature: -25°C ~ +45°C , daily average: ≤ 35°C
 Altitude: 1000m(Standard); can up to 4500m for special ordering;
 Relative humidity: daily average ≤ 95%, monthly average ≤ 90%;
 Earthquake intensity: ≤ 8 degree;
 Applicable occasions should be free from corrosives, inflammables and vapor.

■ Model and its meaning



■ Product feature

The switchgear is an assembly unit and the circuit breaker adopts handcart floor model. It owns simply change and well exchange after equipping with advanced composite insulation vacuum circuit breaker. Lead screw nut propulsion mechanism is installed in the handcart frame for preventing from fault operating and damaging propulsion mechanism, the handcart can be remove easily; All of the operation steps can be carried out at closing condition; It is compulsory locking among main switch, handcart and panel door to meet five protection; wide space for connecting several cables in cable cubicle. Earthing switch is used in earthing and loop short circuit, protection degree of enclosure is IP3X, IP2X under opening condition.

■ Technical specification

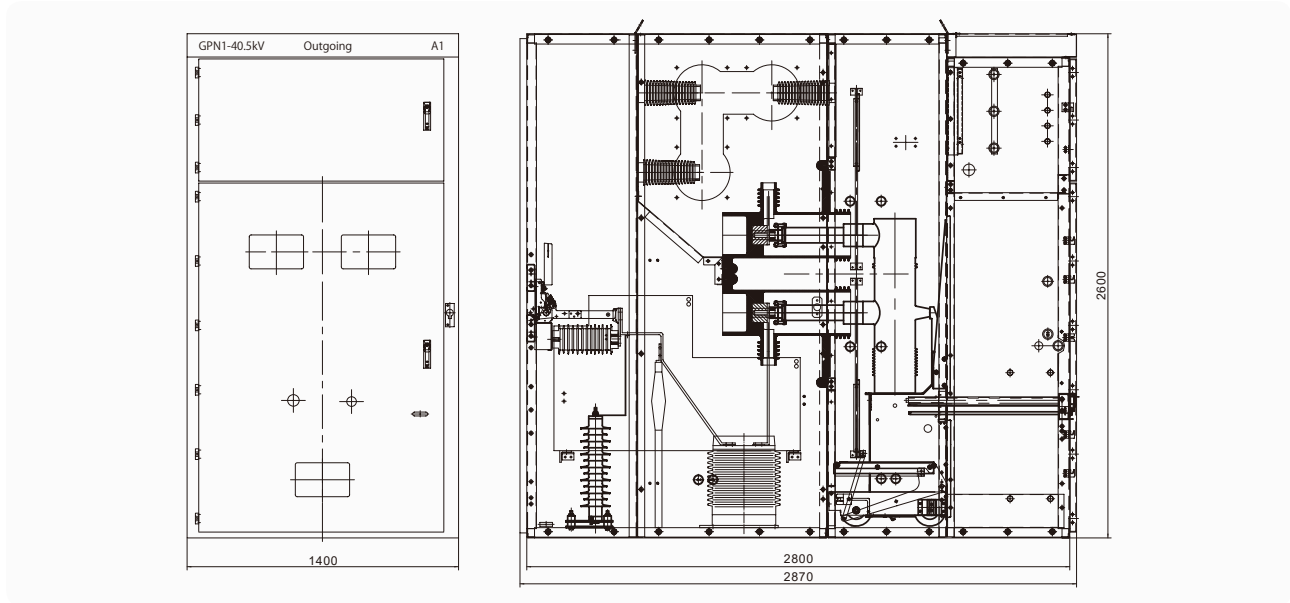
No.	Item	Unit	Data	
1	Rated voltage	kV	36/38/40.5	
2	Rated current	A	1250, 1600, 2000, 2500	
3	Rated frequency	Hz	50/60	
4	Rated short circuit breaking current	kA	25, 31.5	
5	4s rated short time withstand current	kA	25, 31.5	
6	Rated short circuit making current (peak)	kA	63, 80	
7	Rated peak withstand current(peak)	kA	63, 80	
8	Insulation level	Rated lightning impulse withstand voltage	kV	185 (across open contacts: 215)
		Main circuit 1min power frequency withstand voltage	kV	95 (across open contacts: 110)
		Auxiliary circuit 1min power frequency withstand voltage	kV	2
9	Outline dimension(W)*(D)*(H)	mm	1400/2800/2600 (GPN1 type) 1200/2600/2400 (for VD4/HD4 type)	
10	Protection degree		IP3X (compartment IP2X)	
11	Weight	kg	1000-1850 (GPN1 type) 850-1850 (For VD4/HD4 type)	

■ Structure feature

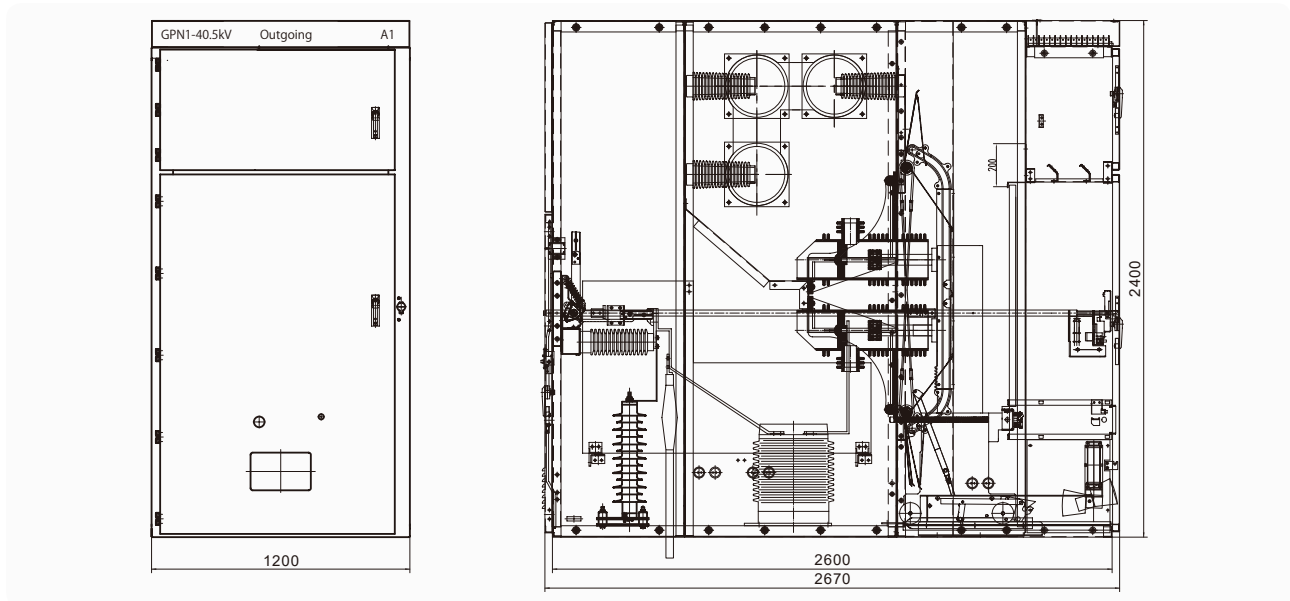
The switchgear divides into enclosure and handcart, the enclosure is made of aluminum-zinc plated steel sheet after processed by CNC machine and multi-bending, then is assembled with bolts. So it has strong mechanical strength and can guarantee the neatness and good appearance. It consist of relay compartment, handcart compartment, cable compartment, protection degree is IP2X when CB handcart is on opening and testing position.

The switchgear is metal-clad removable type, main circuit adopts composite insulation processing, emergency spreading to other parts. CT and earthing switch are mounted in cable compartment and busbar compartment. The protection degree of enclosure is IP3X, the protection and large space for several cables. The structural design of new completely insulated VCB or SF₆ CB and spring operating mechanism is integrated console model with such excellence of well exchange and simply change.

■ Outline dimension of the switchgear



GPN1-40.5 Structure drawing of standard type



GPN1(C)-40.5 Structure drawing for VD4/VH4 type

Note:

1. Motorized feeding for the VCB is available. Any special additional requirement of application, please contact us for technical disclosure.
2. Here only show the outgoing schematic for reference. For the other schematic, Please consult with GP for more details.