

## Indoor Metal-clad Middle-mounted Switchgear TYPE KYN28A-12

### General :

KYN28A-12 Indoor Metal-clad Middle-mounted Switchgear (hereafter referred to as Switchgear) is the complete set of switchgear used for three phase AC single busbar of 3-10KV and 50HZ and single bus section system . It is mainly used for power plant, medium and small size power plant to distribute electric power, for the industrial and mining business to distribute electric power, for the secondary substation of electric power system to accept and distribute electric power, as well as for the start of large size HV dynamo. The switchgear conforms to IEC 298 and GB 3906 standards. It has such functions as followings: preventing live load from pushing and pulling the handle of the circuit breaker, preventing from false breaking or closing the circuit breaker, preventing from closing or opening the circuit breaker when the earthing switch is on the closing position, preventing from false getting into the live compartments and preventing from false closing the live interlock of the earthing switch. It can be equipped with VS1,VD4, VB2, 2AH5, and 10VPR vacuum circuit breaker. It is really a power distribution device with good performance.



### Product feature :

a. It has a package structure and is assembled by rivets connected with high intensity bolts. Its enclosure is 2mm zinc steel sheets coated with aluminum by imported from Switzerland. The material of its door is high quality cold rolled steel sheets by resin toner electrostatic spraying. It is featured by beautiful looking, easy installation and easy maintenance.

b. The steel sheets are bent by numerical equipments by imported. Through this process, the body is featured by light weight, good mechanical ruggedness, IP4X protection level, high accuracy and easy assembly as well as realizing the unification of the materials.

c. Each HV compartment is completely isolated. On each ceiling of them there is a compression release passage, which ensure that the internal arc malfunction doesn't influence the compartment nearby and the equipments and personnel are safe. All the HV/LV compartments are well sealed. And the HV compartments are fitted in automatic heating device to make the surface of the insulator dry inside the switchgear.

d. It can be operated while closing. The normal operation of the switchgear must be done on the condition that the HV compartment is opening or closing in order to ensure the safety of

the personnel, including opening/closing circuit breaker, the trolley of circuit breaker is pulled to the working position and exits to testing/ isolating position and the opening/ closing of the earthing switch.

e. The body is made up of truck room, busbar room, cable room, relay room and instrument room. The earthing metal valve is mounted at the back of the truck room. When the trolley is pulled out, the valve closes automatically; The secondary contact realizes opening or breaking along with the movement of the truck, in or out. The busbar room is separated from other rooms. The cable room is on the back and bottom part, it is easy to lay incoming or outgoing cable. There is earthing busbar at the bottom. The relay room and instrument room are on the front and upper part.

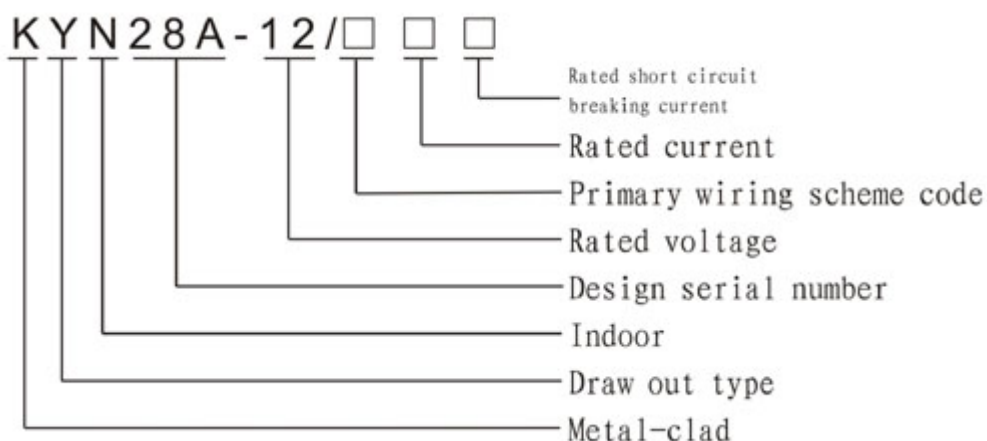
f. The drawable level clapboard and demountable clapboard of busbar room make such activity may process on the face of the switchgear, as the connection of main busbar, installation and examine and repair of cable, earthing switch, lightning arrestor and current transformer etc. They are very convenient.

g. Through the inspection window, you can see making button of the truck of the circuit breaker, mechanical position indicator of circuit breaker, spring stored energy/ released energy indicator and manual-drive making circuit breaker.

h. Combined truck and insulating structure of body, it makes the interlock safe, reliable and flexible. The truck has breaking position, testing position and working position inside the switchgear. Each position has orientation device to make sure the reliability of the interlock.

i. The live busbar inside the switchgear has a thermal contraction bushing. The busbar is made of copper, coated with tin at the junction point.

Type and designation :



Technical parameter:

| Item                                      |  | Unit              | Data                         |
|---|--|-------------------|------------------------------|
| Rated voltage<br>(Max working voltage)    |  | kV                | 12                           |
| Rated<br>insulation<br>level              | 1 min power frequency<br>withstand voltage | kV                | 42                           |
|   | Lightning<br>impulse withstand<br>voltage  | kV                | 75                           |
| Rated frequency                           |  | Hz                | 50                           |
| Main busbar rated current                 |  | A                 | 630,1250,1600,2000,2500,3150 |
| Branch busbar rated current               |  | A                 | 630,1250,1600,2000,2500,3150 |
| 4s short-time withstand<br>current(r.m.s) |  | kA                | 16,20,25, 31.5,40,50         |
| Rated peak withstand current(peak)        |  | kA                | 40,50,63,80,100,125          |
| Protection level                          |  | IP4X of enclosure |                              |

Ordering notice :

Please provide the followings:

- a. Main wiring scheme code, single line system diagram, pareto diagram and layout plan;
- b. Secondary principle diagram, terminal pareto diagram. please in conformity with the manufacturer's terminal pareto diagram, if without it;
- c. The type, specification and quantity of the electrical components of switchgear;
- d. Summary table of electrical equipment;
- e. Please provide span and height dimensions if busbar bridge(between two ranks of switchgear or between switchgear and wall) is needed;
- f. Please indicate if switchgear shall be used on the special condition;
- g. Please indicate type and quantity of other accessories, if necessary.