CLAIMS

1. A fireproof cabinet body structure, comprising: a cabinet body, wherein an opening is arranged on one side of the cabinet body and is suitable for mounting a cabinet door, and the cabinet body comprises a keel frame and at least one layer of gypsum board fixed on an outer vertical surface of the keel frame; adjacent gypsum boards are seamlessly pieced together; the keel frame has a rigidity greater than that of the gypsum board; and

a plurality of support legs, wherein the plurality of support legs penetrate through the gypsum board and are fixedly connected with the keel frame

wherein the keel frame comprises rectangular tubes and angle steels;

a side surface of the cabinet body opposite to the opening is provided with the rectangular tubes along a center line thereof;

except that two edges in the keel frame located on the side surface and parallel to the rectangular tubes of the center line adopt angle steels, the remaining edges in the keel frame adopt rectangular tubes;

an inner vertical surface of the keel frame is further provided with an inner panel;

a gap layer is formed by surrounding the rectangular tubes parallel to two sides of any one of the angle steels with the inner panel and the gypsum board;

wherein two opposite inner panels are provided with an air supply opening and an air return opening communicating with the corresponding gap layer;

an air inlet corresponding to the air supply opening and an air outlet corresponding to the air return opening are arranged on the gypsum board located at a distal end of the corresponding gap layer;

ventilation fire-retardant valves are arranged on the air inlet and the air outlet;

one of two gap layers forms an air inlet channel, and the other gap layer forms an air outlet channel.

2. The fireproof cabinet body structure according to claim 1, wherein a direction of the supporting force of any one of the support legs is the same as an extending direction of a vertical beam in the keel frame.

3. The fireproof cabinet body structure according to claim 2, wherein the keel frame is a steel keel frame.

4. The fireproof cabinet body structure according to claim 1, wherein the ventilation fire-retardant valve comprises a valve body and fire-retardant discs, a fixed shaft is mounted on the valve body, the fire-retardant discs are arranged on the fixed shaft in a penetrating manner and are oppositely disposed, two ends of a fuse link are hooked to a second hook on the fire-retardant disc, the fixed shaft is further provided with a torsion spring in a penetrating manner, and torsion feet of the torsion spring are abutted against an inner side surface of the fire-retardant disc.

5. The fireproof cabinet body structure according to claim 1, wherein at least two layers of gypsum boards are arranged on the outer vertical surface of the keel frame; and the gypsum boards between layers are stacked on each other, and edges thereof form a stepped abutting structure.

6. The fireproof cabinet body structure according to any one of claims 1-5, wherein reinforcing ribs are arranged in the keel frame.

7. The fireproof cabinet body structure according to any one of claims 1-5, wherein peripheral side walls and an outer surface of the bottom part of the cabinet body are covered with metal sheets, and the top part of the cabinet body is covered with an outer panel.

8. The fireproof cabinet body structure according to any one of claims 1-5, wherein the top and/or side walls of the cabinet body are provided with electrostatic grounding devices connected with the keel frame.

9. A fireproof safety cabinet, comprising: the fireproof cabinet body structure according to any one of claims 1-8 and a cabinet door mounted on an opening at one side of the cabinet; and

a door frame arranged along an edge of the opening of the cabinet body and fixedly connected with the keel frame; wherein the door frame is a steel structure frame; both the door frame and the keel frame are fixedly connected with the support legs; and

the cabinet door is hinged on the door frame

wherein a high temperature fire-retardant cloth and a rubber fire-retardant expansion strip are arranged at a gap between the cabinet body and the cabinet door.

10. The fireproof safety cabinet according to claim 9, wherein the cabinet door comprises an outer decorative metal plate and an inner decorative plate, and a steel

frame and a fireproof layer are sequentially arranged between the outer decorative metal plate and the inner decorative plate from outside to inside;

a handle is arranged on the cabinet door; and a stainless steel conductor is arranged on a surface of the cabinet door and/or the handle.

11. The fireproof safety cabinet according to claim 9, further comprising a metal shelf frame, wherein the metal shelf frame is mounted on two opposite side walls of the cabinet body by metal fasteners, the metal fasteners are fixedly mounted to the keel frame, and a metal shelf is hooked to a first hook on the metal shelf frame.

12. The fireproof safety cabinet according to claim 9 , further comprising a cabinet door deactivation device, wherein the cabinet door deactivation device comprises a door closer and a deactivation assembly, the deactivation assembly comprises an elastomer buckle, a metal adapter plate and a metal fixing bottom plate, the elastomer buckle is fixedly mounted to the metal adapter plate, the metal adapter plate is fixedly connected with the metal fixing bottom plate through a fusion layer, the metal fixing bottom plate is mounted to the cabinet door, and the elastomer buckle is provided with a clamping groove matched with a rocker arm of the door closer.