Application of CHV to Elevator

Keywords:
Inverter, PLC, traction machine, car, counter weight, braking unit, braking resistor, photo-electric encoder, PG card

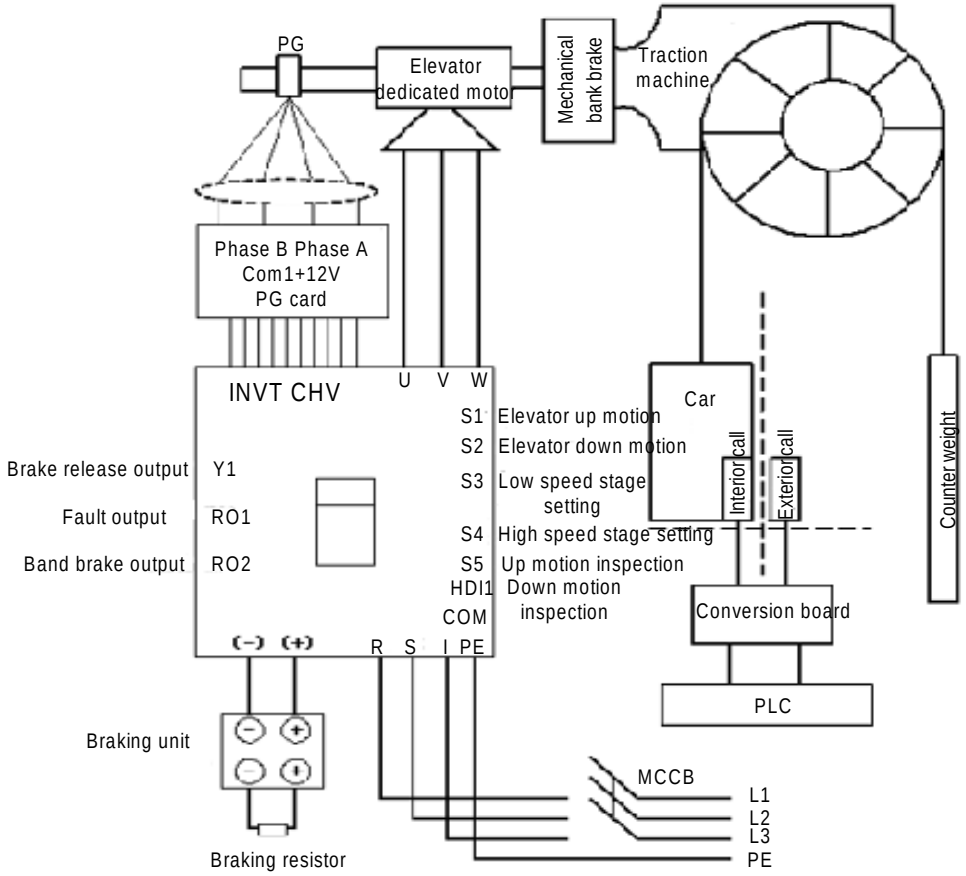
Composition of elevator: An elevator consists of electrical part and mechanical part.

Electrical part: Consists of inverter, PLC, interior/exterior control panel, braking unit, braking resistor, control converter board, and so on.

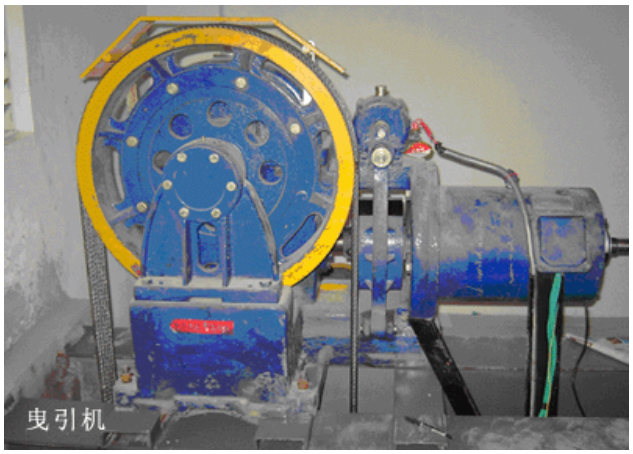
Mechanical part: Consists of car, traction machine, motor. Counter weight, governor, and so on.

Functional description: The function control of the elevator is implemented by a PLC, which is the center of the control part and implements such functions as inverter start/stop control, frequency setting, interior/exterior call control, mechanical band brake, floor self-tuning, and fault protection.

The inverter adopts PG vector control and outputs brake release and band brake signals in conjunction with the PLC. At the same time, the PG card sends frequency division pulse signals to the PLC to facilitate the floor self-tuning of the PLC.



Schematic Diagram of Electrical Layout of Elevator Control



Traction machine

Band brake controller

CHV vector inverter

Summary:

The CHV high-performance vector inverters independently developed by Shenzhen INVT Electric Co., Ltd. can be used as the main part for core control of an elevator. Their outstanding control performance and convenient output are comparable to or even better than like inverters at home or abroad.