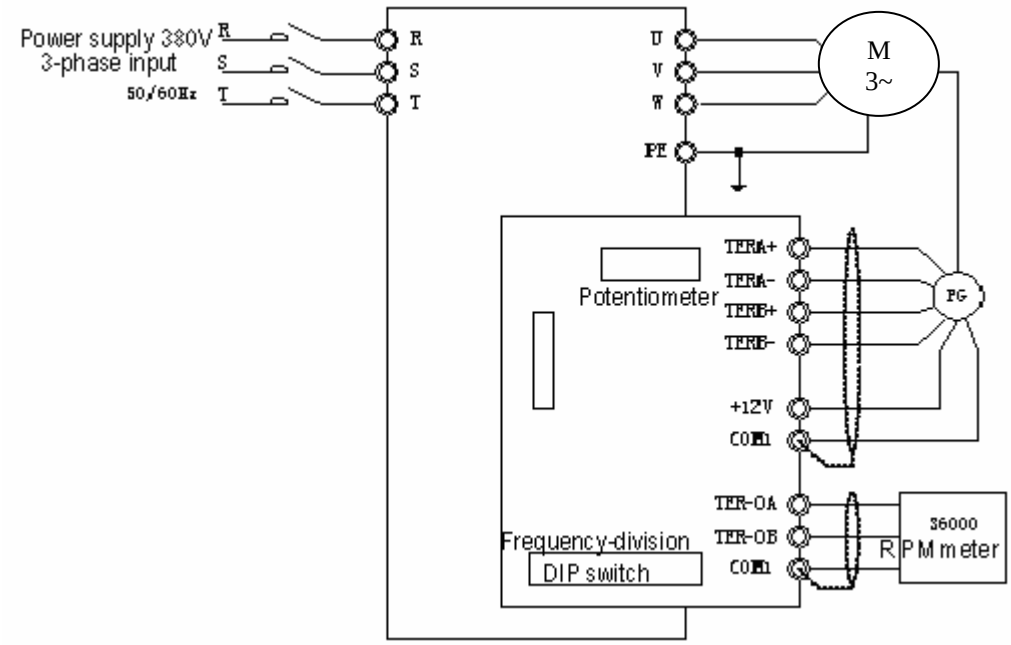
CHV commissioning procedure in elevator application

一、Proper wiring, including power cable R, S,T, output cable U, V, W and wire between inverter and braking resistor.

二、Wiring between encoder and PG card please find the following diagram:



三、Motor parameter autotuning (For details, please refer to operation manual of CHV)

1、Decouple the load from motor, ensure the motor in no-load status.

2、Setup motor rated parameter according to nameplate properly.（P2.01~P2.05）

3、Set P0.17=1，press RUN to start autotuning procedure.

4、After autotuning completed, keypad will display END，the correct motor parameter will be saved in P2.06~P2.10.

四、Trial operation in no-load status:

Set P0.00=1（Vector control with PG）

Set P3.10=1024 （According to encoder parameter）

Set P0.10=10Hz（Keypad reference frequency）

1. Make elevator running in maintenance mode. Keep an eye on running current which is displayed in keypad. If running current is too large, operation is not normal or fault occurs, user can set P3.11=1 and try again.
2. If fault still occurs, set P0.00=0（sensorless vector control）and try again. If operation is still not normal, it means motor parameter (P2.06~P2.10) is not correct, they need to be modified properly. If operation is normal, it means the fault could be caused by encoder, user should check encoder or wiring is correct or not.
3. If rotation autotuning can not be completed in some cases or parameter is not correct after autotuning completed, user can modify motor parameter manually. For close loop vector control, major parameters which need to be modified are P2.07 and P2.10.
4. When user adjust P2.10, output voltage of inverter need to be monitored. If output

voltage is too high（relative to V/F curve），user can decrease P2.10，vice versa.

5. P2.07 is used to improve output torque of inverter. If user increase P2.07，output torque of inverter will be increased accordingly. This feature could be applied in application such as lack of starting torque or unstable stop.

五、If trial operation is successful, connect the load with motor and commission inverter with load. Following parameter list is typical parameter setting for elevator. User can refer to this parameter list to setup parameter accordingly.

P0.00 Control mode	1：Vector control with PG
P0.01 Run command source	1：Terminal command
P0.03 Frequency A command source	5：Multi-step speed
P0.11 Acceleration time 0	5.0s（adjust depend on actual application）
P0.12 Deceleration time 0	4.0s（adjust depend on actual application）
P1.05 Acceleration / Deceleration mode	1：S curve
P1.06 Starting segment of S curve	40%（adjust depend on actual application）
P1.07 Stopping segment of S curve	40%（adjust depend on actual application）
P2.01 Motor rated frequency	35.00Hz（According to speed of elevator）
P2.02 Motor rated speed	960rpm（According to nameplate of motor）
P2.03 Motor rated voltage	360V（According to nameplate of motor）
P2.04 Motor rated current	24A（According to nameplate of motor）
P2.05 Motor rated power	11kW（According to nameplate of motor）
P2.06- P2.10 remains factory setting.	
P3.00 Proportional gain 1	25（adjust depend on actual application）
P3.01 Integral time 1	1.00S（adjust depend on actual application）
P3.10 PG parameter	1024（According to actual encoder parameter）
P5.02 S1 Terminal function	1：Forward
P5.03 S2 Terminal function	2：Reverse
P5.04 S3 Terminal function	16：Multi-step terminal 1。
P5.05 S4 Terminal function	17：Multi-step terminal 2。
P5.06 S5 Terminal function	53：3 wire jog control。
P6.01 Y output selection	8：Zero speed running。
P6.04 Relay 1 output selection	19：Motor running。
P6.05 Relay 2 output selection	3：Fault output。
P8.00 Acceleration time 1	4.5S（adjust depend on actual application）
P8.01 Deceleration time 1	15.0S（adjust depend on actual application）
P8.06 Jog reference	6Hz
P8.07 Jog acceleration time	1.0 S
P8.08 Jog deceleration time	1.0 S
PA.02 Multi-step speed 0	0.0%
PA.04 Multi-step speed 1	3.8%（adjust depend on actual application）
PA.06 Multi-step speed 2	70.0%（adjust depend on actual application）
PA.34 ACC/DEC time selection for step 0~7	01
PD.03 Specific function selection	1：Elevator

Notice:

1. Adopt multi-step speed control, adjust PA.04 for low speed running, adjust PA.06 for high

speed running.

2. Maintenance speed will be controlled by jog frequency which is determined by P8.06.