Basic parameters setting of GD350 position control

For position control, users have to use PG card together with encoder, make sure the whole system (include motor, encoder, PG ard, VFD) all items connection and wiring are OK. Users need to use P20/P21P22 group parameters. For digital positioning mode, here is an example for customer reference:

1. Encoder type is : PPR = 1024PPR , V = 5VDC. There is a switch on the PG card, please ensure that the PG card's switch is on 5V status.

2. P00.18=1, to reset to factory parameters. Set motor parameters and PG card encoders parameters correctly;

P00.00=2,

P00.01=1 Depends on your actual requirements.

P00.02=? Depends on your requirements.

P00.10=20,

P00.11=3

P00.12=3

P02.01=2.50

P02.02=50.0

P02.03=1500

P02.04=230

P02.05=9.40

P05.01=1

3. Finish auto-tuning

P00.15=1, P00.15=2.

4. Check encoder installation is correct or not.

P20.01=1024

Run the inverter, to check the motor speed is 20Hz or not. Check P18.00=20 or not, if it's 20Hz, that means everything is OK, you can go ahead below steps. If it's 18Hz or 19Hz or others, that means encoder install wrong or encoder parameters wrong. If it's -20Hz, that means direction wrong, set P20.02=1.

This step is very important!!!

5. If above steps correct, please go ahead below steps:

P00.00=3

P20.00= 0 (Incremental Encoder)

P20.01=1024 (PPR)

P21.00=0011 Enable digital positioning control.

Need to set P21.17, P21.11, P21.12 to set the position displacements.

Need to set P21.18 and P21.19 to set the position speed.

Need to set P21.20 and P21.21 to set the ACC/DEC time.

P20.11=? Depends on your application.

P20.12=? Depends on your application.

P21.16=? Depends on your application. Bit1=0 that means only single position; Bit1=1 that means cycle position.

P21.17=? 4096 (Equivalent the one revolution of the motor – 360 °) OK.