

Basic parameters	Tuning parameters	Password Form	Curve monitoring interface
Base	Present value	Setting value	Value range
3	- Pulse smoothing filter parameters		
4	Input pulse smoothing filter	512	1-1024
5	- Filter parameters		
6	Speed stage 1 filter bandwidth	100	0-65535
7	Speed stage 2 filter bandwidth	300	0-65535
8	Acceleration filter bandwidth	500	0-65535
9	Position-loop output filter bandwidth	1000	0-65535
10	- Current parameters		
11	Peak current	5600	1000-7000
12	Close-loop current percentage	100	0-100
13	Locking current percentage	50	0-100
14	Locking current time	100	0-65535
15	Close-loop max current percentage	100	0-100
16	Open-loop max current percentage	100	0-100
17	- Signal function parameters		
18	AIM output polarity	0	0-1
19	MF input polarity	0	0-1
20	MF FPMC	1	0-2
21	FPM output polarity	0	0-1
22	FPM FPMC	1	0-3
23	Positioning complete range	5	1-100
24	Positioning complete time	10	0-65535
25	Position deviation alarm threshold	4000	1-65535
26	- Microstep and encoder para.		
27	Enable electronic gear ratio	0	0-1
28	Encoder resolution	4000	1000-5000
29	Electronic gear numerator	1000	1-60000
30	Electronic gear denominator	4000	1-60000
31	Microsteps when turn all switches ON	400	0-65535
32	- Input pulse parameters		
33	Options of input pulse edge	0	0-1
34	Input pulse frequency limit	11	1-16
35	- Motor parameters		
36	Motor model selection	0	0-1

Basic parameters	Tuning parameters	Password Form	Curve monitoring interface
Base	Present value	Setting value	Value range
1	- Current loop parameters		
2	Current speed point one	3	0-50
3	Current speed point two	15	1-50
4	Current loop Kp rate	4096	4096-16384
5	Current loop Kp	512	0-65535
6	Current loop Ki	1966	0-65535
7	Current loop Kd	10	0-65535
8	Current loop test current	1000	0-65535
9	Kp for locking motor	0	0-65535
10	Ki for locking motor	0	0-65535
11	- Angle algorithm tuning parameters		
12	Angle algorithm position Kp1	2560	0-65535
13	Angle algorithm position Kd1	114	0-65535
14	Angle algorithm position Kp2	2560	0-65535
15	Angle algorithm position Kd2	1024	0-65535
16	Angle algorithm speed feedback Koff	19	0-65535
17	Angle algorithm position Ki	0	0-65535
18	- Vector algorithm tuning parameters		
19	Vector algorithm position Kp	4250	0-65535
20	Vector algorithm position Ki	1000	0-65535
21	Vector algorithm position Kd	51	0-65535
22	Speed feedback Kp1	3645	0-65535
23	Speed feedback Kd2	0	0-65535
24	Areal feedback Kdoffd1	0	0-65535
25	Speed feedforward Kpff	3686	0-65535
26	Areal feedforward Kuff	0	0-65535
27	Gravity compensation	512	0-65535

A Input pulse smoothing filter: Filter time= (x) *50us When the load is heavier and there are higher requirements for speed and acceleration, increase this value.

Increasing the response of this parameter will reduce the response, but the load acceleration and deceleration will be longer. When you need to draw a circle, the number of X and Y axis should be the same.

B Peak current: Driver output maximum current

C Percentage of closed-loop base current:The base of the current loop proportional gain section adjustment

D Locking current percentage:The motor locks current when the motor is stopped, and the magnitude of this current is related to the output and heat of the

motor when the motor is locked.

E Locking current time: The motor enters the lock current time when it stops (ms)

F Current loop KP: The current loop proportional gain, when the load is heavier, and the speed requirement is high, increase by 100 each time on the original basis. When the load is lighter and the speed requirement is higher, the original basis is reduced by 100 each time.

G Position loop proportional gain KP1: Increasing this value can increase the rigidity. This parameter can be increased when the response and positioning are required to be faster.

Suggest 2560-5560 adjustment.

H Position loop proportional gain KP2: Increasing this value can increase the rigidity. This parameter can be increased when the response and positioning are required to be faster.

It is recommended to adjust 2560-5560. (Note: G and H need to be debugged together, the parameters can be the same, or H can be 5% larger than G)

I Speed loop proportional gain KV1 : Suggested range: 114-2000, I and J are recommended to be adjusted at the same time. Increasing this value can increase the rigidity, increasing by 100 each time.

J Speed loop proportional gain KV2: Suggested range: 1024-8000, I and J are recommended to be adjusted at the same time. Increasing this value can increase the rigidity, increasing by 500 each time.