

Case name	Shihlin SA3on nylon spinning machine				
Department	FA engineering group	date	2018.01.22	page	2
Product	Shihlin SA3 series				

1. Requirements

This case is applied to the nylon spinning machine by Shilin Inverter SA3-023-15K/18.5KF. The material winding process gradually increases the diameter of the reel. At this time, it is necessary to ensure the tension of the rolled product is stable. When the disc diameter is gradually increased, the relative output torque of the drive reel needs to be increased. At the same time, in order to keep the winding product line speed constant, the reel speed must be reduced, and the mechanical characteristics of the torque motor are satisfied. This requirement. This case uses SA3-023-15K/18.5KF for multiple torque motor drive control.

2. System structure



3. Parameter setting

number	setting	description
P.7	6	acceleration time
P.8	6	deceleration time
P.79	2	operating mode
P.14	14	suitable load select
P.500	1	2-5 terminal input function
P.501	13	4-5 terminal input function
P.17	1	4-5 signal select
P.700	1	VF separate voltage source
P.701	220	VF separate voltage setting
P.702	7	VF separate voltage acceleration time
P.703	5	VF separate voltage deceleration time
P.704	0	VF separate stop mode select

P.196	10	4-5 minimum input current/voltage percentage
P.198	0	4-5 minimum input current/voltage
P.197	100	4-5 maximum input current/voltage percentage
P.199	10	4-5 maximum input current/voltage

4. System function description

VF complete separation mode can control the output frequency of the inverter and the output voltage are independent of each other, so that the output frequency is controlled by the frequency source, and the output voltage is controlled by the VF separation voltage source.

The external analog input terminal can adjust the corresponding percentage of the control output according to the proportional change requirement.

5. Recommendations

Shihlin SA3 inverters have perfect protection functions, output in-phase protection, output short-circuit protection, earth leakage current protection, low voltage protection, motor overheating signal (PTC), and electrolytic capacitor life detection.

Shihlin SA3 Inverter 12 sets of alarms are recorded in each group of alarms, recording output frequency, output current, output voltage, temperature rise cumulative rate, PN voltage and other information, so that the operator has enough information to judge the problem when alarm occurs.