

# SD500 Self-learning process

reference column:

- 1) To use our SD500 converter with synchronous motor, you have to self-learn, You can choose static self-learning, it is best to take off the motor for rotary self-learning.
- 2) Using our SD500 converter with encoder, closed loop control, must be self-learning , You can choose static self-learning, it is best to take off the motor for rotary self-learning.
- 3) If you use our SD500 inverter with asynchronous motor, it is best if you can carry out self-learning. The results will be even better.

一、Set motor parameters according to motor nameplate

Parameter	Name	Content	explain
F01.00	Motor control	The control mode of the motor. <b>Asynchronous motor control mode:</b> 0: AM-VF; VF control 1:AM-SVC; open loop vector control, current closed loop control 2: AM-FVC; closed loop vector control <b>Synchronous motor control mode:</b> 10: PM-VF; VF control 11: PM-SVC; open loop vector control 12: PM-FVC; closed loop vector contro	
F02.01	Number of motor poles	Set the number of motor poles	
F02.02	Rated power	Set the rated power of the motor.	
F02.03	Rated frequency	Set the rated frequency of the motor.	
F02.04	Rated rotate speed	Set the rated rotate speed of the motor.	
F02.05	Rated voltage	Set the rated voltage of the motor.	
F02.06	Rated current	Set the rated current of the motor	
F02.30	Speed feedback encoder type	0: Normal ABZ encoder (extension port EX_B) 1:rotary transformer(connected to the expansion port EX_B)	
F02.31	Encoder direction	0: the same direction    1: the opposite direction	
F02.33	ABZ encoder line number	Set the number of ABZ encoder lines.	
F02.34	Number of resolver poles	Set the number of resolver poles.	
F01.10	Maximum frequency	The maximum frequency that the frequency converter can set.	
F01.12	Upper limit frequency digital setting	Upper limit frequency given channel when F01.11 is set to 0	
F02.07	Motor parameter self-tuning selection	After the parameter self-tuning is finished, the value of [F02.07] will be automatically set to "0". 0: No operation 1: Rotary self-learning 2: Static self-learning 3: Stator resistance self-learning	

for example:

F02.07=2, appear T -00 Press the right most bond key to start self-learning and return to the monitoring interface.

Reasons for self-learning failure:

1. If the rated frequency of the motor is greater than the maximum frequency and upper frequency, please modify  $F01.10 = F01.12 \geq F02.03$ .
2. Motor parameters are not entered correctly