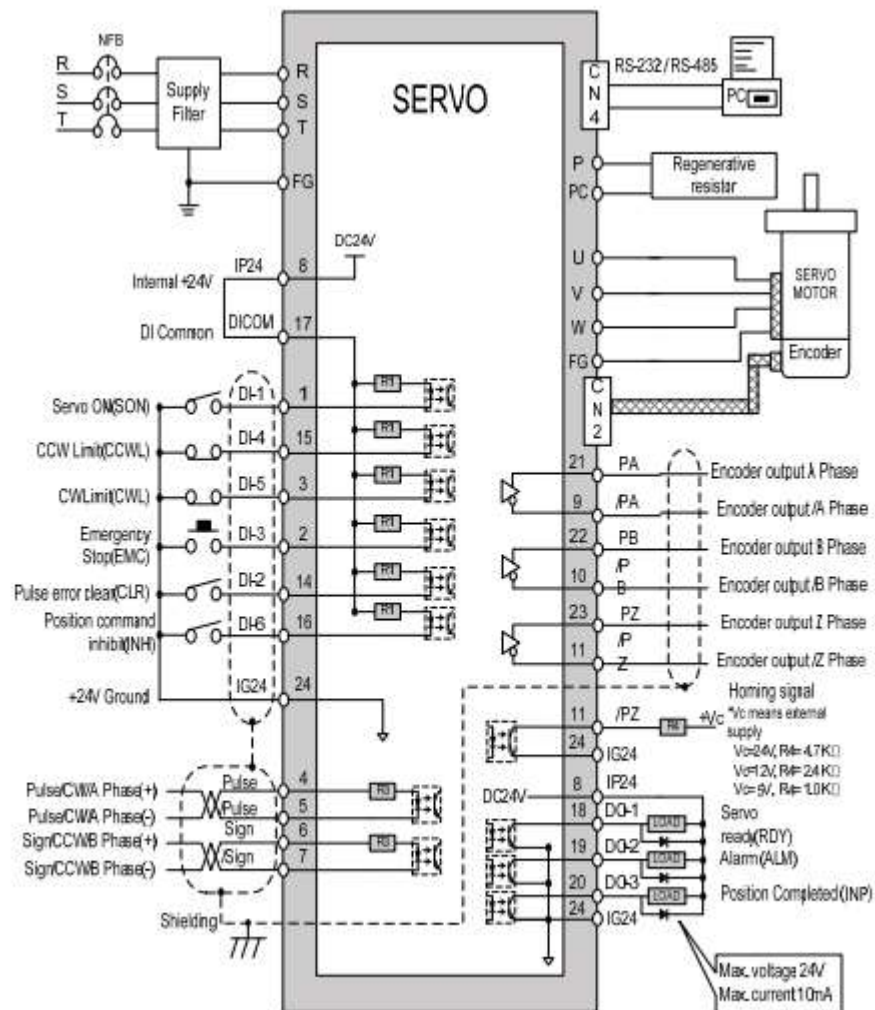


HƯỚNG DẪN SỬ DỤNG FATEK FSD SERIES SERVO DRIVER

1. SƠ ĐỒ ĐẦU NỐI:



2. CÁC THÔNG SỐ CẦN CÀI ĐẶT:

- Cn001: 2 – Position control mode.
- Cn002.1: 1 – Always SON.
- Cn002.2: 1 – Disabled CWW/CW.
- Pn301.0: 0 – Pulse/Direction.
- Pn301.1: 0 – Positive Logic.

3. Các lỗi trên driver:

Alarm Code	Alarm Name and Description	Corrective Actions	Reset Method	Fault Status Digital Output			
				CN1-25 BB/A3	CN1-24 ST/A2	CN1-23 PC/A1	CN1-22 LM/A0
00	Normal	—	—	If there is no Alarm, CN1-22~CN1-25 operates in accordance with default function. Please refer to 2-2-1.			
01	Under-voltage The main circuit voltage is below its minimum specified value. (190Vac)	Use multi-meter to check whether the input voltage is within the specified limit. If it can not be solved, there may be failure inside the Drive.	Turn ALRS(DI) ON	1	1	1	0
	Over-voltage (Regeneration error) 1. The main circuit voltage is exceeded maximum allowable value. (410V) 2. Regeneration voltage is too high.	1. Use multi-meter to check whether the input voltage is within the specified limit. 2. Check the Parameter Cn012 if it is setting correctly. 3. If this alarm appears during operation. Extend ac/deceleration time or reduce load ratio in the permitted range. Otherwise, an external regeneration resistor is needed. (Please contact your supplier for assistance.)	Turn ALRS(DI) ON	1	1	0	1
03	Motor Over-load The drive has exceeded its rated load during continuous operation. When the loading is equal to 2 times of rated loading, alarm occurs within 10sec.	1. Check connection for Motor terminals (U,V,W) and Encoder. 2. Adjust the Drive gain. If gain is not correctly adjusted, it would cause motor vibration and large current will lead to motor over load. 3. Extend acc/deceleration time or reduce load ratio in the permitted range.	Turn ALRS(DI) ON	1	1	0	0
	Drive Over-current Drive main circuit Over current or Transistor error.	1. Check connection of the motor cable (U,V,W) and encoder. Check power cable connection. Refer to the diagram in Chapter 2. 2. Turn off the power, and turn on again after 30 min. If the alarm still exists, there may be power module malfunction or noise consider the drive for test and repair.	Reset Power Supply	1	0	1	1

05	Encoder ABZ phase signal error	1. Check the motor's encoder connections. 2. Check the encoder if short circuit, poor solder joints or break. 3. Check the encoder signal terminals CN2-1 and CN2-2. (power cable 5v)	Reset Power Supply	1	0	1	0
	Motor's encoder failure or encoder connection problem.		Reset Power Supply	1	0	0	1
06	Encoder UVW phase signal error	1. Check parameters Hn601~Hn606, trigger level selected by 2 nd digit of Hn 601 to 606 should be the same for all inputs DI-1~DI-6. 2. Check parameters setting of Hn613 ~ Hn615 should NOT be the same for outputs contact DO-1~DO-3.	Reset Power Supply	1	0	0	0
	Motor's encoder failure or encoder connection problem.		Reset Power Supply	1	0	0	0

08	Memory Error Parameter write-in error	Disconnect all command cable then re-cycle the power. If alarm still occurs, it means the Drive was failure.	Reset Power Supply	0	1	1	1
09	Emergency Stop When the input contact point EMC is activated. Alarm 09 appears	1. Disable Emergency stop signal input. 2. Internal mal-function. Ensure that all connection are correct, refer to Chapter 2 Power and motor circuit diagrams connection. Control wiring diagrams.	Turn ALRS(DI) ON	0	1	1	0
10	Motor over-current Motor current is 4 times greater than rated current.	1. Check if the motor wiring U,V,W)and encoder wiring correct or not. 2. Internal interference and mal-function. Ensure that all connection are correct ,refer to Chapter 2 Power and motor circuit diagrams.	Turn ALRS(DI) ON	0	1	0	1
11	Position error The deviation between Pulse command and encoder feed back (position error) is greater than the setting of Pn308 or Pn309.	1. Increase the position loop gain (Pn310 and Pn311) setting value. 2. Increase in position tolerance value by (Pn307) for a better motor response. 3. Extend the time of ac/deceleration or reduce load inertia in the permitted range. 4. Check if the motor wiring (U,V,W) is correct.	Turn ALRS (DI) ON	0	1	0	0

Alarm Code	Alarm Name and Description	Corrective Actions	Reset Method	Alarm Status Digital Output			
				CN1-25 BB/A3	CN1-24 ST/A2	CN1-23 PC/A1	CN1-22 LM/A0
12	Motor over speed Motor's speed is 1.5 times more than motor's rated speed.	1. Reduce the speed command. 2. Electronic gear ratio is incorrect check and set correctly. 3. Adjust speed loop gains (Sn211 & Sn213) for a better motor response.	Turn ALRS (DI) ON	0	0	1	1
13	CPU Error Control system Mal-function.	Turn off the power. Turn on again after 30min. If error alarm still exists, this may be due to external interference. Refer to the chapter 2 Motor , power cable and control signals connections.	Reset Power Supply	0	0	1	0
14	Drive disable When input contacts CCWL & CWL are operated at the same time this alarm occurs.	1. Remove input contact signal CCWL or CWL. 2. Check all input wiring for correct connections. 3. For the selected High /Low logic potential settings refer to Section 5-6-1.	Turn ALRS (DI) ON	0	0	0	1
15	Drive overheat Power transistor temperature exceed 90°C.	Over-load for a long duration will cause driver overheat, check and reset operation system.	Turn ALRS (DI) ON	0	0	0	0
16	Absolute Encoder Battery error Battery module remove or battery voltage is lower than 3.2V	Make sure if battery module is removed, power supply is losing, or battery is power shortage and requires replacing.	Turn ALRS (DI) ON	1	0	1	0