■ 7. Fault tracking and processing

Contents of this chapter

This chapter lists all of the alarm (warning) and fault information,Including possible causes and corrective actions.Alarm / fault code is displayed on the driver's control keyboard (LED Version display in the form of E-XX).Alarm or fault information is used to indicate that the driver is in an abnormal state.Most alarms and faults can be identified and corrected using the information in this chapter.If you can not rule out the fault,Please contact our representative office.In this chapter,Alarm and fault sort according to the code.

Security

Warning！ Only have the qualification of the electrical engineer is allowed to drive conduct for maintenance.Before starting to drive conduct operation,Must read the safety instructions in front of the relevant hardware manual.

How to reset

Can be controlled by pressing the keyboard (RESET key),Or cut off the power supply for a period of time to reset the fault.After troubleshooting,Motor can start again.

Fault code and interpretation

Code	Fault name	Possible causes	Terms of settlement
01	SC(Output short circuit)	Output phase to phase short circuit 、 Or output to earth short circuit、Or output to the bus short circuit.	Check whether the motor is short circuit、Check wiring and cable short circuit.Check whether there is a power factor compensation capacitor or surge absorber in the motor cable.
02	OC(Motor over current)	Motor current exceeds the maximum permissible level of hardware.	Check the motor rated parameters is consistent with the nameplate 、 Check the acceleration and deceleration time is too fast.
03	OV(Bus overvoltage)	Bus voltage exceeds the maximum permissible level.	Check whether the overpressure stall enable.Check whether the brake resistance is within the recommended range.
04	OH(Drive over heat)	Drive within the radiator temperature is too high、Or the internal cavity temperature is too high、Or module chip temperature is too high.	Check cooling fan、Ventilation cooling system is normal 、 Radiator is dust clogging 、 Check if the ambient temperature is within the allowable range.
05	GF(Earth leakage)	The sum of the output current is not zero,And greater than the allowable value.	Check wiring is loose、Check whether the motor cable leakage.Or the motor output line is too long and there is no additional output reactor.
06	ADC(ADC Fault)	Motor current sensor fault 、 Analog to digital converter fault or control panel.	Contact local agents or vendors.

Code	Fault name	Possible causes	Terms of settlement
07	NTC LOSS(Temperature sensor break)	Drive internal temperature sensor disconnection.	Contact local agents or vendors.
08	ENC INIT	The encoder is found to be faulty during initialization.	Check the encoder wiring is correct,Check the encoder wiring is correct.
09	ENC ZMARK	The number of pulses between the two Z pulses captured by the encoder is different from that of the encoder.	Check encoder resolution settings are correct.Check whether the encoder cable is disturbed.
10	EEPROM	Memory failure,Failed write parameter.	Contact local agents or vendors.
11	CPU OVERLOAD	CPU load over 100%,Failure to complete real-time task.Or stack overflow.	Contact local agents or vendors.
12	PARA ERROR	The parameters of the motor are conflicting with each other。	Check motor parameters are set correctly.
13	MOTOR OH	The temperature of the motor exceeds the set fault point.	Check whether the motor is overloaded、Check motor overheating protection settings are correct.
14	AI LOSS	Analog input out set of range.	Check whether analog input is broken or short.
15	EXT FAULT	External user defined fault.	Check external fault signal。
16	SUPPLY LOSS	Abnormal power supply.Or lack of phase,Or unbalanced three-phase input, or insufficient capacity.	Check whether the lack of phase.Check whether the capacitance value is normal.
17	OUTPUT LOSS	Output current anomalyOr the output phase,or IGBT and peripheral anomalies can not be controlled.	Check whether the motor is short of phase.Check whether the motor vibration。Or contact local agents or vendors.
18	ID RUN	Motor self identification fault.	Check whether the motor has been connected.Check the motor nameplate parameters are set correctly.
19	MODBUS FAULT	MODBUS Communication failure.	Check MODBUS communication.
20	CANOPEN FAULT	CAN Communication failure.	Check CAN communication.
21	PROFIBUS FAULT	PROFIBUSCommunication failure.	Check PROFIBUS communication.
22	PAR SET ERR	Backup parameter set error in memory.	Parameter set not backup.
23	UNDER VOLTAGE	Drive operation,Power supply under pressure.	Check whether the power supply is normal.Check whether the soft start is normal.

Code	Fault name	Possible causes	Terms of settlement
24	SPEED FEEDBACK	Speed feedback fault.	Speed feedback speed feedback phase disconnection or positive feedback.
25	OVER SPEED	Overspeed.	Motor speed,Check encoder settings are correct,Check whether the feedback is positive feedback.
26	OPTCARD CHANGED	Hot swap card options.	Do not allow the hot swap option card,Otherwise it may cause permanent damage to the driver.
27	RUNTIME LIMITTED	Run time is limited.	Contact local agents.
28	PID FBK LOSS	Process PID feedback break.	Check whether the PID disconnection detection is correct,Check whether the external wire break.
29	BR ERR	The brake resistance is less than allowable resistance drive.	Check the brake resistance is reasonable.
30	BR OVERLOAD	Regenerative braking resistor.	Check the brake resistor overload detection settings are correct,Check whether the power of resistance is reasonable.
31	BRAKE SLIP	The brake during the inspection,Motor slip.	Check whether the need to replace the brake,Check the brake check settings are correct.
32	BRAKE FLT	Open the front brake,Start moment can not be reached.	Check whether the normal brake.
33	BRAKE SAFE CLOSE	Open loop control,The motor works in the low speed dangerous area,Brake force close.	Check whether speed given is too low.
34	BRAKE OL	After the brake open,Actual compliance exceeds the maximum allowable torque of the drive.	Check whether the load is too high，Check the brake control circuit is normal.
35	BRAKE ACK FLT	After the brake open,Non response signal.	Check the brake response signal is normal.
36	BRAKE SYNC FLT	Lifting control,Motor speed and the given estimated deviation is too large,Magnetic flux anomaly.	Check motor parameters are set correctly.
40	PM SYNC LOSS	Multiple step out of step in the starting process of synchronous motor.	Check whether the initial angle identification parameter is set correctly
41	MOTOR STALL	Motor blocking fault，The rotor is almost impossible to rotate,The moment has reached the maximum torque.	Check if the machine is locked