Index	Object type	Name	Data type	Access	Mappable
6099_h	ARRAY	Homing speeds	UNSIGNED32	RW	Y
$60C0_h$	VAR	Interpolation sub mode select	INTEGER16	RO	Y
$60C1_h$	ARRAY	Interpolation data record	INTEGER32	RW	Y
$60C2_h$	RECORD	Interpolation time period	INTEGER8	RW	Y
$60F4_h$	VAR	Following error actual value	INTEGER32	RO	Y
$60F8_h$	VAR	Max slippage	INTEGER32	RW	Y
$60FA_h$	VAR	Control effort	INTEGER32	RO	Y
$60FC_h$	VAR	Position demand value*	INTEGER32	RO	Y
$60FD_h$	VAR	Digital inputs	UNSIGNED32	RO	Y
$60FE_h$	ARRAY	Digital outputs	UNSIGNED32	RO	Y
$60FF_h$	VAR	Target velocity	INTEGER32	RW	Y

Table 8-8 CANopen fault codes

Display	Fault name	32-bit fault code (16-bit error code + 16-bit additional information)
Er01-0	IGBT fault	2320-0100h
Er01-5	IPM fault	2334-0105h
Er02-0	Encoder fault–Encoder communication exception	7301-0200h
Er02-1	Encoder fault–Encoder feedback deviation too large	7300-0201h
Er02-2	Encoder fault– Parity error	7300-0202h
Er02-3	Encoder fault–CRC error	7300-0203h
Er02-4	Encoder fault–Frame error	7300-0204h
Er02-5	Encoder fault–Short frame error	7300-0205h
Er02-6	Encoder fault–Encoder exception reporting	7305-0206h
Er02-7	Encoder fault–Second-encoder timeout	7306-0207h
Er02-8	Encoder fault–Encoder battery low-voltage alarm	5114-0208h
Er02-9	Encoder fault–Encoder battery undervoltage fault	5115-0209h
Er02-a	Encoder fault–Encoder overheating	7300-020ah

Display	Fault name	32-bit fault code (16-bit error code + 16-bit additional information)
Er02-b	Encoder fault–Encoder EEPROM writing error	7300-020bh
Er02-c	Encoder fault–No data in encoder EEPROM	7300-020ch
Er02-d	Encoder fault–Encoder EEPROM data check error	7300-020dh
Er03-0	Current sensor fault–Phase-U current sensor fault	7200-0300h
Er03-1	Current sensor fault–Phase-V current sensor fault	7200-0301h
Er03-2	Current sensor fault–Phase-W current sensor fault	7200-0302h
Er04-0	System initialization fault	6100-0400h
Er05-1	Setting fault–Motor model not exist	6320-0501h
Er05-2	Setting fault–Motor and drive model not match	6320-0502h
Er05-3	Setting fault–Incorrect software limits	6320-0503h
Er05-4	Setting fault–Incorrect homing mode	6320-0504h
Er05-5	Setting fault–PTP-control travel overflow	6320-0505h
Er07-0	Regeneration discharge overload fault	7112-0700h
Er08-0	AI overvoltage fault–AI 1	7200-0800h
Er08-1	AI overvoltage fault–AI 2	7200-0801h
Er09-0	EEPROM fault–Read/write error	5520-900h
Er09-1	EEPROM fault–Data check error	5530-0901h
Er10-0	Hardware fault–FPGA fault	7400-1000h
Er10-1	Communication card fault	7500-1001h
Er10-2	Hardware fault–Ground short-connection fault	2300-1002h
Er10-3	Hardware fault–External input fault	5430-1003h
Er10-4	Hardware fault–Emergency stop fault	5430-1004h
Er10-5	Hardware fault–RS485 communication fault	7500-1005h

Display	Fault name	32-bit fault code (16-bit error code + 16-bit additional information)
Er10-6	Hardware fault–AC power phase loss	7500-1006h
Er11-0	Software fault–Motor control task re-entry	6100-1100h
Er11-1	Software fault–Periodic task re-entry	6100-1101h
Er11-2	Software fault–Illegal operation	6100-1102h
Er12-0	I/O fault–Duplicate digital input assignment	6320-1200h
Er12-2	I/O fault–Pulse input frequency too high	5430-1202h
Er13-0	Main circuit overvoltage	3110-1300h
Er13-1	Main circuit undervoltage	3120-1301h
Er14-0	Control power undervoltage	5200-0E00h
Er17-0	Drive overload	3230-1700h
Er17-1	Drive overload 2	3230-1701h
Er18-0	Motor overload	3230-1800h
Er18-1	Motor overtemperature	3230-1801h
Er19-0	Speed fault–Overspeed	8400-1900h
Er19-1	Speed fault–CCW overspeed	8400-1901h
Er19-2	Speed fault–CW overspeed	8400-1902h
Er19-3	Speed fault–Overspeed parameter set incorrectly	6320-1903h
Er19-4	Speed fault–Motor runaway fault	8400-1904h
Er20-0	Speed deviation fault	8400-2000h
Er21-0	Position overtravel–CCW	8500-2100h
Er21-1	Position overtravel–CW	8500-2101h
Er22-0	Position deviation fault	8611-2200h
Er22-1	Hybrid control deviation too large	8611-2201h
Er22-2	Position increment overflow	8611-2202h
Er22-3	CANopen fault–Synchronization signal timeout	8611-2203h
Er22-4	CANopen fault–Full position command buffer	7500-2204h
Er23-0	Drive overtemperature	4201-2300h

Display	Fault name	32-bit fault code (16-bit error code + 16-bit additional information)
Er25-4	Application fault–Encoder offset angle test timeout	ff00-2504h
Er25-5	Application fault–Encoder offset angle test failed	ff00-2505h
Er25-6	Application fault–Homing offside	ff00-2506h
Er25-7	Application fault–Inertia identifying failed	ff00-2507h
Er25-8	Application fault–Magnetic pole detection failure	ff00-2508h
Er25-9	Application fault–Overtravel or overspeed in acknowledgement of magnetic pole detection	ff00-2509h
Er25-a	Application fault–Out of the range of magnetic pole detection	ff00-250ah
Er26-0	CANopen fault–CANopen offline	8100-2600h
Er26-1	CANopen fault–SDO index not exist	8100-2601h
Er26-2	CANopen fault–SDO sub-index not exist	8100-2602h
Er26-3	CANopen fault–Incorrect SDO data length	8100-2603h
Er26-4	CANopen fault–SDO data out of range	8100-2604h
Er26-5	CANopen fault–Modification not allowed for read-only	8100-2605h
Er26-6	CANopen fault–Incorrect PDO mapping length	8100-2606h
Er26-7	CANopen fault–PDO mapping data not exist	8100-2607h
Er26-8	CANopen fault–PDO modification not allowed in operational state	8100-2608h
Er26-9	CANopen fault–PDO mapping not allowed	8100-2609h
Er26-a	CANopen fault–Synchronization signal too fast	8100-260ah
Er26-b	CANopen fault–Receiving fault	8100-260bh
Er26-c	CANopen fault–Sending fault	8100-260ch

Display	Fault name	32-bit fault code (16-bit error code + 16-bit additional information)
Er26-d	CANopen fault–Duplicate synchronization signal	8100-260dh
Er26-e	CANopen fault–Bus load ratio too high	8100-260eh
Er26-f	CANopen fault–Incorrect parameter modification status	8100-260fh

8.4 Upper computer software

8.4.1 ServoPlorer

ServoPlorer is the upper computer software for monitoring and commissioning DA180 servo driver. It can:

- Monitor drive status parameters in real time.
- Modify drive parameters online.
- Support USB communication, and monitor the waveforms through four channels in real time with a minimum resolution of 0.125ms.
- Save parameters to files in batches and download them to the servo driver in batches.
- Display and read faults.
- Provide independent function application interfaces (such as for frequency feature testing, inertia identifying, jogging, and electronic cams)

8.4.2 Hardware

CPU	Pentium 4 or later
Memory	1G or greater
Hard disk	512M or greater
Screen resolution	1024×768 or higher
Communication interface	USB1.1

8.4.3 Software

Operating system	Windows XP, Vista, Windows7
.NET version	.NET Framework 4.0
Excel version	Excel 2007, 2010 or later

8.4.4 Communication connection

The servo driver can connect to a computer through the USB interface. See the following for the connection.