

3.2 List of Faults and Alarms

Product: SINAMICS G120, Version: 4402100, Language: eng,
Objects: CU230P-2 CAN, CU230P-2 DP, CU230P-2 HVAC

F01000	Internal software error
Reaction:	OFF2
Acknowledge:	POWER ON
Cause:	An internal software error has occurred. Fault value (r0949, interpret hexadecimal): Only for internal Siemens troubleshooting.
Remedy:	<ul style="list-style-type: none"> - evaluate fault buffer (r0945). - carry out a POWER ON (power off/on) for all components. - upgrade firmware to later version. - contact the Hotline. - replace the Control Unit.
F01001	FloatingPoint exception
Reaction:	OFF2
Acknowledge:	POWER ON
Cause:	An exception occurred during an operation with the FloatingPoint data type. The error may be caused by the base system or an OA application (e.g., FBLOCKS, DCC). Fault value (r0949, interpret hexadecimal): Only for internal Siemens troubleshooting. Note: Refer to r9999 for further information about this fault. r9999[0]: Fault number. r9999[1]: Program counter at the time when the exception occurred. r9999[2]: Cause of the FloatingPoint exception. Bit 0 = 1: Operation invalid Bit 1 = 1: Division by zero Bit 2 = 1: Overflow Bit 3 = 1: Underflow Bit 4 = 1: Imprecise result
Remedy:	<ul style="list-style-type: none"> - carry out a POWER ON (power off/on) for all components. - check configuration and signals of the blocks in FBLOCKS. - check configuration and signals of DCC charts. - upgrade firmware to later version. - contact the Hotline.
F01002	Internal software error
Reaction:	OFF2
Acknowledge:	IMMEDIATELY
Cause:	An internal software error has occurred. Fault value (r0949, interpret hexadecimal): Only for internal Siemens troubleshooting.
Remedy:	<ul style="list-style-type: none"> - carry out a POWER ON (power off/on) for all components. - upgrade firmware to later version. - contact the Hotline.
F01003	Acknowledgement delay when accessing the memory
Reaction:	OFF2
Acknowledge:	IMMEDIATELY
Cause:	A memory area was accessed that does not return a "READY". Fault value (r0949, interpret hexadecimal): Only for internal Siemens troubleshooting.
Remedy:	<ul style="list-style-type: none"> - carry out a POWER ON (power off/on) for all components. - contact the Hotline.

N01004 (F, A)	Internal software error
Reaction:	NONE
Acknowledge:	NONE
Cause:	An internal software error has occurred. Fault value (r0949, hexadecimal): Only for internal Siemens troubleshooting.
Remedy:	- read out diagnostics parameter (r9999). - contact the Hotline. See also: r9999 (Software error internal supplementary diagnostics)

F01005	File upload/download error
Reaction:	NONE
Acknowledge:	IMMEDIATELY
Cause:	The upload or download of EEPROM data was unsuccessful. Fault value (r0949, interpret hexadecimal): yyxxxx hex: yy = component number, xxxx = fault cause xxxx = 000B hex = 11 dec: Power unit component has detected a checksum error. xxxx = 000F hex = 15 dec: The selected power unit will not accept the content of the EEPROM file. xxxx = 0011 hex = 17 dec: Power unit component has detected an internal access error. xxxx = 0012 hex = 18 dec: After several communication attempts, no response from the power unit component. xxxx = 008B hex = 140 dec: EEPROM file for the power unit component not available on the memory card. xxxx = 008D hex = 141 dec: An inconsistent length of the firmware file was signaled. It is possible that the download/upload has been interrupted. xxxx = 0090 hex = 144 dec: When checking the file that was loaded, the component detected a fault (checksum). It is possible that the file on the memory card is defective. xxxx = 0092 hex = 146 dec: This SW or HW does not support the selected function. xxxx = 009C hex = 156 dec: Component with the specified component number is not available (p7828). xxxx = Additional values: Only for internal Siemens troubleshooting.
Remedy:	Save a suitable firmware file or EEPROM file for upload or download in folder "/ee_sac/" on the memory card.

A01009 (N)	CU: Control module overtemperature
Reaction:	NONE
Acknowledge:	NONE
Cause:	The temperature (r0037[0]) of the control module (Control Unit) has exceeded the specified limit value.
Remedy:	- check the air intake for the Control Unit. - check the Control Unit fan. Note: The alarm automatically disappears after the limit value has been undershot.

F01010	Drive type unknown
Reaction:	NONE
Acknowledge:	IMMEDIATELY
Cause:	An unknown drive type was found.
Remedy:	- replace Power Module. - carry out a POWER ON (power off/on). - upgrade firmware to later version. - contact the Hotline.

F01015 Internal software error

Reaction: OFF2
Acknowledge: POWER ON
Cause: An internal software error has occurred.
 Fault value (r0949, decimal interpretation):
 Only for internal Siemens troubleshooting.
Remedy: - carry out a POWER ON (power off/on) for all components.
 - upgrade firmware to later version.
 - contact the Hotline.

A01016 (F) Firmware changed

Reaction: NONE
Acknowledge: NONE
Cause: At least one firmware file in the directory /SIEMENS/SINAMICS/ has been changed without authorization with respect to the version shipped from the factory. No changes are permitted in this directory.
 Alarm value (r2124, interpret decimal):
 0: Checksum of one file is incorrect.
 1: File missing.
 2: Too many files.
 3: Incorrect firmware version.
 4: Incorrect checksum of the back-up file.
 See also: r9925 (Firmware file incorrect)
Remedy: For the non-volatile memory for the firmware (memory card/device memory), restore the delivery condition.
 Note:
 The file involved can be read out using parameter r9925.
 See also: r9926 (Firmware check status)

A01017 Component lists changed

Reaction: NONE
Acknowledge: NONE
Cause: On the memory card, one file in the directory /SIEMENS/SINAMICS/DATA or /ADDON/SINAMICS/DATA has been illegally changed with respect to that supplied from the factory. No changes are permitted in this directory.
 Alarm value (r2124, interpret decimal):
 zyx dec: x = Problem, y = Directory, x = File name
 x = 1: File does not exist.
 x = 2: Firmware version of the file does not match the software version.
 x = 3: File checksum is incorrect.
 y = 0: Directory /SIEMENS/SINAMICS/DATA/
 y = 1: Directory /ADDON/SINAMICS/DATA/
 z = 0: File MOTARM.ACX
 z = 1: File MOTSRM.ACX
 z = 2: File MOTSLM.ACX
 z = 3: File ENCDATA.ACX
 z = 4: File FILTDATA.ACX
 z = 5: File BRKDATA.ACX
 z = 6: File DAT_BEAR.ACX
 z = 7: File CFG_BEAR.ACX
Remedy: For the file on the memory card involved, restore the status originally supplied from the factory.

F01018 Booting has been interrupted several times

Reaction: NONE
Acknowledge: POWER ON
Cause: Module booting was interrupted several times.
Possible reasons for booting being interrupted:
- POWER OFF of the module.
- CPU crash.
- USER data invalid.
After this fault is output, then the module is booted with the factory settings.
Remedy: Power down the module and power it up again.
Note:
After switching on, the module reboots from the USER data (if available).
If the fault situation is repeated, then this fault is again output after several interrupted boots.

A01019 Writing to the removable data medium unsuccessful

Reaction: NONE
Acknowledge: NONE
Cause: The write access to the removable data medium was unsuccessful.
Remedy: Remove and check the removable data medium. Then run the data backup again.

A01020 Write to RAM disk unsuccessful

Reaction: NONE
Acknowledge: NONE
Cause: The write access to the internal RAM disk was unsuccessful.
Remedy: Adapt the size of the system logbook (p9930) to the internal RAM disk.

F01023 Software timeout (internal)

Reaction: NONE
Acknowledge: IMMEDIATELY
Cause: An internal software timeout has occurred.
Fault value (r0949, decimal interpretation):
Only for internal Siemens troubleshooting.
Remedy:
- carry out a POWER ON (power off/on) for all components.
- upgrade firmware to later version.
- contact the Hotline.

A01028 Configuration error

Reaction: NONE
Acknowledge: NONE
Cause: The parameterization that was downloaded was generated with a different module type (Order No., MLFB).
Remedy: Save parameters in a non-volatile fashion (p0971 = 1).

F01030 Sign-of-life failure for master control

Reaction: OFF3 (IASC/DCBRAKE, NONE, OFF1, OFF2, STOP2)
Acknowledge: IMMEDIATELY
Cause: For active PC master control, no sign-of-life was received within the monitoring time.
The master control was returned to the active BICO interconnection.
Remedy: Set the monitoring time higher at the PC or, if required, completely disable the monitoring function.
For the commissioning software, the monitoring time is set as follows:
<Drive> -> Commissioning -> Control panel -> Button "Fetch master control" -> A window is displayed to set the monitoring time in milliseconds.
Notice:
The monitoring time should be set as short as possible. A long monitoring time means a late response when the communication fails!

F01033	Units changeover: Reference parameter value invalid
Reaction:	NONE
Acknowledge:	IMMEDIATELY
Cause:	When changing over the units to the referred representation type, it is not permissible for any of the required reference parameters to be equal to 0.0 Fault value (r0949, parameter): Reference parameter whose value is 0.0. See also: p0505 (Selecting the system of units), p0595 (Selecting technological units)
Remedy:	Set the value of the reference parameter to a number different than 0.0. See also: p0304, p0305, p0310, p0596, p2000, p2001, p2002, p2003, r2004
F01034	Units changeover: Calculation parameter values after reference value change unsuccessful
Reaction:	NONE
Acknowledge:	IMMEDIATELY
Cause:	The change of a reference parameter meant that for an involved parameter the selected value was not able to be re-calculated in the per unit representation. The change was rejected and the original parameter value restored. Fault value (r0949, parameter): Parameter whose value was not able to be re-calculated. See also: p0304, p0305, p0310, p0596, p2000, p2001, p2002, p2003, r2004
Remedy:	Select the value of the reference parameter such that the parameter involved can be calculated in the per unit representation. See also: p0304, p0305, p0310, p0596, p2000, p2001, p2002, p2003, r2004
A01035 (F)	ACX: Boot from the back-up parameter back-up files
Reaction:	NONE
Acknowledge:	NONE
Cause:	When the Control Unit is booted, no complete data set was found from the parameter back-up files. The last time that the parameterization was saved, it was not completely carried out. Instead, a back-up data set or a back-up parameter back-up file is downloaded. Alarm value (r2124, interpret hexadecimal): Only for internal Siemens troubleshooting.
Remedy:	If you have saved the project using the commissioning software, carry out a new download for your project. Save using the function "Copy RAM to ROM" or with p0971 = 1 so that all of the parameter files are again completely written to the non-volatile memory.
F01036 (A)	ACX: Parameter back-up file missing
Reaction:	NONE (OFF1, OFF2, OFF3)
Acknowledge:	IMMEDIATELY
Cause:	When downloading the device parameterization, a parameter back-up file associated with a drive object cannot be found. Neither a PSxxxxyy.ACX, a PSxxxxyy.NEW nor a PSxxxxyy.BAK parameter back-up file exists in the non-volatile memory for this drive object. Fault value (r0949, interpret hexadecimal): Byte 1: yyy in the file name PSxxxxyy.ACX yyy = 000 --> consistency back-up file yyy = 001 ... 062 --> drive object number yyy = 099 --> PROFIBUS parameter back-up file Byte 2, 3, 4: Only for internal Siemens troubleshooting.
Remedy:	If you have saved the project data using the commissioning software, carry out a new download for your project. Save using the function "Copy RAM to ROM" or with p0971 = 1 so that all of the parameter files are again completely written to the non-volatile memory. If you have not saved the project data, then first commissioning of the system has to be carried out again.

F01037 (A) ACX: Re-naming the parameter back-up file unsuccessful

Reaction: NONE (OFF1, OFF2, OFF3)

Acknowledge: IMMEDIATELY

Cause: Re-naming after saving a parameter back-up file in the non-volatile memory was unsuccessful.
One of the parameter back-up files to be re-named had the "read only" attribute. The parameter back-up files are saved in the directory \USER\SINAMICS\DATA.
It is possible that the non-volatile memory is defective.
Fault value (r0949, interpret hexadecimal):
Byte 1: yyy in the file names PSxxxxyy.* or CAxxxxyy.* or CCxxxxyy.*
yyy = 000 --> consistency back-up file
yyy = 099 --> PROFIBUS parameter back-up file PSxxx099.*
Byte 2: xxx in the file name PSxxxxyy.*
xxx = 000 --> data save started with p0971 = 1
xxx = 010 --> data save started with p0971 = 10
xxx = 011 --> data save started with p0971 = 11
xxx = 012 --> data save started with p0971 = 12
Byte 4, 3:
Only for internal Siemens troubleshooting.

Remedy: - check whether one of the files to be overwritten has the attribute "read only" and change this file attribute to "writable". Check all of the files (PSxxxxyy.*, CCxxxxyy.*, CAxxxxyy.*) that belong to drive yyy designated in the fault value.
- replace the memory card or Control Unit.

F01038 (A) ACX: Loading the parameter back-up file unsuccessful

Reaction: NONE (OFF1, OFF2, OFF3)

Acknowledge: IMMEDIATELY

Cause: An error has occurred when downloading PSxxxxyy.ACX or PTxxxxyy.ACX files from the non-volatile memory.
Fault value (r0949, interpret hexadecimal):
Byte 1: yyy in the file name PSxxxxyy.ACX
yyy = 000 --> consistency back-up file
yyy = 001 ... 062 --> drive object number
yyy = 099 --> PROFIBUS parameter back-up file
Byte 2:
255 = incorrect drive object type
254 = topology comparison unsuccessful -> drive object type was not able to be identified
Reasons could be:
- incorrect component type in the actual topology
- component does not exist in the actual topology
- component not active
Otherwise for internal Siemens troubleshooting.
Byte 4, 3:
Only for internal Siemens troubleshooting.

Remedy: - If you have saved the project data using the commissioning software, carry out a new download for your project. Save using the function "Copy RAM to ROM" or with p0971 = 1 so that all of the parameter files are again completely written to the non-volatile memory.
- replace the memory card or Control Unit.

F01039 (A)	ACX: Writing to the parameter back-up file was unsuccessful
Reaction:	NONE (OFF1, OFF2, OFF3)
Acknowledge:	IMMEDIATELY
Cause:	Writing to at least one parameter back-up file PSxxxxyy.*** in the non-volatile memory was unsuccessful. - In the directory /USER/SINAMICS/DATA/ at least one parameter back-up file PSxxxxyy.*** has the "read only" file attribute and cannot be overwritten. - There is not sufficient free memory space available. - The non-volatile memory is defective and cannot be written to. Fault value (r0949, interpret hexadecimal): dcba hex a = yyy in the file names PSxxxxyy.*** a = 000 --> consistency back-up file a = 001 ... 062 --> drive object number a = 099 --> PROFIBUS parameter back-up file b = xxx in the file names PSxxxxyy.*** b = 000 --> data save started with p0971 = 1 b = 010 --> data save started with p0971 = 10 b = 011 --> data save started with p0971 = 11 b = 012 --> data save started with p0971 = 12 d, c: Only for internal Siemens troubleshooting.
Remedy:	- check the file attribute of the files (PSxxxxyy.***, CAxxxxyy.***, CCxxxxyy.***) and, if required, change from "read only" to "writeable". - check the free memory space in the non-volatile memory. Approx. 80 kbyte of free memory space is required for every drive object in the system. - replace the memory card or Control Unit.

F01040	Save parameter settings and carry out a POWER ON
Reaction:	OFF2
Acknowledge:	POWER ON
Cause:	A parameter has been changed that requires the parameters to be backed up and the Control Unit to be switched OFF and ON again.
Remedy:	- Save parameters (p0971). - Switch Control Unit OFF/ON (POWER ON).

F01042	Parameter error during project download
Reaction:	OFF2 (NONE, OFF1, OFF3)
Acknowledge:	IMMEDIATELY
Cause:	<p>An error was detected when downloading a project using the commissioning software (e.g. incorrect parameter value).</p> <p>For the specified parameter, it was detected that dynamic limits were exceeded that may possibly depend on other parameters.</p> <p>Fault value (r0949, interpret hexadecimal): cbbaaaa hex aaaa = Parameter bb = Index cc = fault cause</p> <p>0: Parameter number illegal. 1: Parameter value cannot be changed. 2: Lower or upper value limit exceeded. 3: Sub-index incorrect. 4: No array, no sub-index. 5: Data type incorrect. 6: Setting not permitted (only resetting). 7: Descriptive element cannot be changed. 9: Descriptive data not available. 11: No master control. 15: No text array available. 17: Task cannot be executed due to operating state. 20: Illegal value. 21: Response too long. 22: Parameter address illegal. 23: Format illegal. 24: Number of values not consistent. 108: Unit unknown.</p> <p>Additional values: Only for internal Siemens troubleshooting.</p>
Remedy:	<ul style="list-style-type: none"> - enter the correct value in the specified parameter. - identify the parameter that restricts the limits of the specified parameter.

F01043	Fatal error at project download
Reaction:	OFF2 (OFF1, OFF3)
Acknowledge:	IMMEDIATELY
Cause:	<p>A fatal error was detected when downloading a project using the commissioning software.</p> <p>Fault value (r0949, decimal interpretation):</p> <p>1: Device status cannot be changed to Device Download (drive object ON?). 2: Incorrect drive object number. 8: Maximum number of drive objects that can be generated exceeded. 11: Error while generating a drive object (global component). 12: Error while generating a drive object (drive component). 13: Unknown drive object type. 14: Drive status cannot be changed to "ready for operation" (p0947 and p0949). 15: Drive status cannot be changed to drive download. 16: Device status cannot be changed to "ready for operation". 18: A new download is only possible if the factory settings are restored for the drive unit. 20: The configuration is inconsistent.</p> <p>Additional values: only for internal Siemens troubleshooting.</p>
Remedy:	<ul style="list-style-type: none"> - use the current version of the commissioning software. - modify the offline project and download again (e.g. compare the motor and Power Module in the offline project and on the drive). - change the drive state (is a drive rotating or is there a message/signal?). - carefully note any other messages/signals and remove their cause.

F01044	CU: Descriptive data error
Reaction:	OFF2
Acknowledge:	POWER ON
Cause:	An error was detected when loading the descriptive data saved in the non-volatile memory.
Remedy:	Replace the memory card or Control Unit.
A01045	Configuring data invalid
Reaction:	NONE
Acknowledge:	NONE
Cause:	An error was detected when evaluating the parameter files PSxxxxxyy.ACX, PTxxxxyy.ACX, CAxxxxyy.ACX, or CCxxxxyy.ACX saved in the non-volatile memory. Alarm value (r2124, interpret hexadecimal): Only for internal Siemens troubleshooting.
Remedy:	Restore the factory setting using (p0970 = 1) and re-load the project to the drive unit. Operation without any restrictions is then possible. After downloading the project, save the parameters in STARTER using "Copy RAM to ROM" or with p0971 = 1. This overwrites the incorrect parameter files in the non-volatile memory.
A01049	It is not possible to write to file
Reaction:	NONE
Acknowledge:	NONE
Cause:	It is not possible to write into a write-protected file (PSxxxxxx.acx). The write request was interrupted. Alarm value (r2124, interpret decimal): Drive object number.
Remedy:	Check whether the "write protected" attribute has been set for the files in the non-volatile memory under .../USER/SINAMICS/DATA/... When required, remove write protection and save again (e.g. set p0971 to 1).
A01064 (F)	CU: Internal error (CRC)
Reaction:	NONE
Acknowledge:	NONE
Cause:	CRC error in the Control Unit program memory
Remedy:	- carry out a POWER ON (power off/on) for all components. - upgrade firmware to later version. - contact the Hotline.
A01066	Buffer memory: 70% fill level reached or exceeded
Reaction:	NONE
Acknowledge:	NONE
Cause:	The non-volatile buffer memory for parameter changes is filled to at least 70%. This can also occur if the buffer memory is active (p0014 = 1) and parameters are continually changed via a fieldbus system.
Remedy:	If required, de-activate and clear the buffer memory (p0014 = 0). If required, clear the buffer memory (p0014 = 2). In the following cases, the entries in the buffer memory are transferred into the ROM and then the buffer memory is cleared: - p0971 = 1 - power down/power up the Control Unit See also: p0014 (Buffer memory mode)

A01067	Buffer memory: 100 % fill level reached
Reaction:	NONE
Acknowledge:	NONE
Cause:	The non-volatile buffer memory for parameter changes is filled to 100%. All additional parameter changes will no longer be taken into account in the non-volatile buffer memory. However, parameter changes can still be made in the volatile memory (RAM). This can also occur if the buffer memory is active (p0014 = 1) and parameters are continually changed via a fieldbus system.
Remedy:	If required, de-activate and clear the buffer memory (p0014 = 0). If required, clear the buffer memory (p0014 = 2). In the following cases, the entries in the buffer memory are transferred into the ROM and then the buffer memory is cleared: - p0971 = 1 - power down/power up the Control Unit See also: p0014 (Buffer memory mode)

A01069	Parameter backup and device incompatible
Reaction:	NONE
Acknowledge:	NONE
Cause:	The parameter backup on the memory card and the device type do not match (e.g. a memory card with the parameter backup of a SINAMICS CU240 is inserted in SINAMICS CU230). The module boots with the factory settings.
Remedy:	- insert a memory card with compatible parameter backup and carry out a POWER ON. - insert a memory card without parameter backup and carry out a POWER ON. - remove the memory card and carry out POWER ON. - save the parameters (p0971 = 1).

A01098	RTC: Date and time setting required
Reaction:	NONE
Acknowledge:	NONE
Cause:	The power supply for the Control Unit was interrupted for an extended period. The date and time displayed on the real-time clock are no longer accurate. Note: This alarm is only output when p8405 = 1 (factory setting). See also: p8405 (Activate/de-activate RTC alarm A01098)
Remedy:	Set the date and time on the real-time clock. Note: RTC: Real-time clock See also: p8400 (RTC time), p8401 (RTC date)

F01105 (A)	CU: Insufficient memory
Reaction:	OFF1
Acknowledge:	POWER ON
Cause:	Too many data sets are configured on this Control Unit. Fault value (r0949, decimal interpretation): Only for internal Siemens troubleshooting.
Remedy:	- reduce the number of data sets.

F01107 Save to memory card unsuccessful

Reaction: NONE

Acknowledge: IMMEDIATELY

Cause: A data save to the memory card was not able to be successfully carried out.
- Memory card defective
- Insufficient space on memory card.
Fault value (r0949, decimal interpretation):
1: The file on the RAM was not able to be opened.
2: The file on the RAM was not able to be read.
3: A new directory could not be created on the memory card.
4: A new file could not be created on the memory card.
5: A new file could not be written on the memory card.

Remedy:
- try to save again.
- replace the memory card or Control Unit.

F01112 CU: Power unit not permissible

Reaction: NONE

Acknowledge: IMMEDIATELY

Cause: The connected power unit cannot be used together with this Control Unit.
Fault value (r0949, decimal interpretation):
1: Power unit is not supported (e.g. PM340).

Remedy: Replace the power unit that is not permissible by a component that is permissible.

F01120 (A) Terminal initialization has failed

Reaction: OFF1 (OFF2)

Acknowledge: IMMEDIATELY (POWER ON)

Cause: An internal software error occurred while the terminal functions were being initialized.
Fault value (r0949, interpret hexadecimal):
Only for internal Siemens troubleshooting.

Remedy:
- carry out a POWER ON (power off/on) for all components.
- upgrade firmware to later version.
- contact the Hotline.
- replace the Control Unit.

F01122 (A) Frequency at the measuring probe input too high

Reaction: OFF1 (OFF2)

Acknowledge: IMMEDIATELY

Cause: The frequency of the pulses at the measuring probe input is too high.
Fault value (r0949, decimal interpretation):
1: DI 1 (term. 6)
2: DI 3 (term. 8)

Remedy: Reduce the frequency of the pulses at the measuring probe input.

F01205 CU: Time slice overflow

Reaction: OFF2

Acknowledge: POWER ON

Cause: Insufficient computation time.
Fault value (r0949, interpret hexadecimal):
Only for internal Siemens troubleshooting.

Remedy: Contact the Hotline.

F01250	CU: CU-EEPROM incorrect read-only data
Reaction:	NONE (OFF2)
Acknowledge:	POWER ON
Cause:	Error when reading the read-only data of the EEPROM in the Control Unit. Fault value (r0949, decimal interpretation): Only for internal Siemens troubleshooting.
Remedy:	- carry out a POWER ON. - replace the Control Unit.

A01251	CU: CU-EEPROM incorrect read-write data
Reaction:	NONE
Acknowledge:	NONE
Cause:	Error when reading the read-write data of the EEPROM in the Control Unit. Alarm value (r2124, interpret decimal): Only for internal Siemens troubleshooting.
Remedy:	For alarm value r2124 < 256, the following applies: - carry out a POWER ON. - replace the Control Unit. For alarm value r2124 >= 256, the following applies: - clear the fault memory (p0952 = 0). - replace the Control Unit.

F01505 (A)	BICO: Interconnection cannot be established
Reaction:	NONE
Acknowledge:	IMMEDIATELY
Cause:	A PROFIdrive telegram has been set (p0922). An interconnection contained in the telegram was not able to be established. Fault value (r0949, decimal interpretation): Parameter receiver that should be changed.
Remedy:	Establish another interconnection.

F01510	BICO: Signal source is not float type
Reaction:	NONE
Acknowledge:	IMMEDIATELY
Cause:	The requested connector output does not have the correct data type. This interconnection is not established. Fault value (r0949, decimal interpretation): Parameter number to which an interconnection should be made (connector output).
Remedy:	Interconnect this connector input with a connector output having a float data type.

F01511 (A)	BICO: Interconnection with different scalings
Reaction:	NONE
Acknowledge:	IMMEDIATELY
Cause:	The requested BICO interconnection was established. However, a conversion is made between the BICO output and BICO input using the reference values. - the BICO output has different normalized units than the BICO input. - message only for interconnections within a drive object. Example: The BICO output has, as normalized unit, voltage and the BICO input has current. This means that the factor p2002/p2001 is calculated between the BICO output and the BICO input. p2002: contains the reference value for current p2001: contains the reference value for voltage Fault value (r0949, decimal interpretation): Parameter number of the BICO input (signal sink).
Remedy:	Not necessary.

F01512	BICO: No scaling available
Reaction:	OFF2
Acknowledge:	POWER ON
Cause:	An attempt was made to determine a conversion factor for a scaling that does not exist. Fault value (r0949, decimal interpretation): Unit (e.g. corresponding to SPEED) for which an attempt was made to determine a factor.
Remedy:	Apply scaling or check the transfer value.
F01513 (A)	BICO: Interconnection cross DO with different scalings
Reaction:	NONE
Acknowledge:	IMMEDIATELY
Cause:	The requested BICO interconnection was established. However, a conversion is made between the BICO output and BICO input using the reference values. An interconnection is made between different drive objects and the BICO output has different normalized units than the BICO input or the normalized units are the same but the reference values are different. Example 1: BICO output with voltage normalized unit, BICO input with current normalized unit, BICO output and BICO input lie in different drive objects. This means that the factor p2002/p2001 is calculated between the BICO output and the BICO input. p2002: contains the reference value for current p2001: contains the reference value for voltage Example 2: BICO output with voltage normalized unit in drive object 1 (DO1), BICO input with voltage normalized unit in drive object 2 (DO2). The reference values for voltage (p2001) of the two drive objects have different values. This means that the factor p2001(DO1)/p2001(DO2) is calculated between the BICO output and the BICO input. p2001: contains the reference value for voltage, drive objects 1, 2 Fault value (r0949, decimal interpretation): Parameter number of the BICO input (signal sink).
Remedy:	Not necessary.
A01514 (F)	BICO: Error when writing during a reconnect
Reaction:	NONE
Acknowledge:	NONE
Cause:	During a reconnect operation (e.g. while booting or downloading - but can also occur in normal operation) a parameter was not able to be written to. Example: When writing to a double word BICO input in the second index, the memory areas overlap (e.g. p8861). The parameter is then reset to the factory setting. Alarm value (r2124, interpret decimal): Parameter number of the BICO input (signal sink).
Remedy:	Not necessary.
F01515 (A)	BICO: Writing to parameter not permitted as the master control is active
Reaction:	NONE
Acknowledge:	IMMEDIATELY
Cause:	When changing the number of CDS or when copying from CDS, the master control is active.
Remedy:	If required, return the master control and repeat the operation.
A01590 (F)	Drive: Motor maintenance interval expired
Reaction:	NONE
Acknowledge:	NONE
Cause:	The selected service/maintenance interval for this motor was reached. Alarm value (r2124, interpret decimal): Motor data set number. See also: p0650 (Actual motor operating hours), p0651 (Motor operating hours maintenance interval)
Remedy:	carry out service/maintenance and reset the service/maintenance interval (p0651).

F01662	Error internal communications
Reaction:	OFF2
Acknowledge:	POWER ON
Cause:	A module-internal communication error has occurred. Fault value (r0949, interpret hexadecimal): Only for internal Siemens troubleshooting.
Remedy:	- carry out a POWER ON (power off/on). - upgrade firmware to later version. - contact the Hotline.
A01900 (F)	PROFIBUS: Configuration telegram error
Reaction:	NONE
Acknowledge:	NONE
Cause:	A PROFIBUS master attempts to establish a connection using an incorrect configuring telegram. Alarm value (r2124, interpret decimal): 2: Too many PZD data words for output or input. The number of possible PZD is specified by the number of indices in r2050/p2051. 3: Uneven number of bytes for input or output.
Remedy:	Check the bus configuration on the master and slave sides. Re alarm value = 2: Check the number of data words for output and input.
F01910 (N, A)	Fieldbus interface setpoint timeout
Reaction:	OFF3 (IASC/DCBRAKE, NONE, OFF1, OFF2, STOP2)
Acknowledge:	IMMEDIATELY
Cause:	The reception of setpoints from the fieldbus interface has been interrupted. - bus connection interrupted. - communication partner switched off. CU230-2P DP: - PROFIBUS master set into the STOP state. See also: p2040 (Fieldbus interface monitoring time), p2047 (PROFIBUS additional monitoring time)
Remedy:	Ensure bus connection has been established and switch on communication peer. CU230-2P HVAC: - if required, adapt p2040. CU230-2P DP: - set the PROFIBUS master to the RUN state. - slave redundancy: For operation on a Y link, it must be ensured that "DP alarm mode = DPV1" is set in the slave parameterization. See also: p2040 (Fieldbus interface monitoring time), p2047 (PROFIBUS additional monitoring time)
A01920 (F)	PROFIBUS: Interruption cyclic connection
Reaction:	NONE
Acknowledge:	NONE
Cause:	The cyclic connection to the PROFIBUS master is interrupted.
Remedy:	Establish the PROFIBUS connection and activate the PROFIBUS master in the cyclic mode.
A01945	PROFIBUS: Connection to the Publisher failed
Reaction:	NONE
Acknowledge:	NONE
Cause:	For PROFIBUS peer-to-peer data transfer, the connection to at least one Publisher has failed. Alarm value (r2124, binary interpretation): Bit 0 = 1: Publisher with address in r2077[0], connection failed. ... Bit 15 = 1: Publisher with address in r2077[15], connection failed.
Remedy:	Check the PROFIBUS cables. See also: r2077 (PROFIBUS diagnostics peer-to-peer data transfer addresses)

F01946 (A)	PROFIBUS: Connection to the Publisher aborted
Reaction:	OFF1 (NONE, OFF2, OFF3)
Acknowledge:	IMMEDIATELY (POWER ON)
Cause:	The connection to at least one Publisher for PROFIBUS peer-to-peer data transfer in cyclic operation has been aborted. Fault value (r0949, interpret binary): Bit 0 = 1: Publisher with address in r2077[0], connection aborted. ... Bit 15 = 1: Publisher with address in r2077[15], connection aborted.
Remedy:	- check the PROFIBUS cables. - check the state of the Publisher that has the aborted connection. See also: r2077 (PROFIBUS diagnostics peer-to-peer data transfer addresses)
F02080	Trace: Parameterization deleted due to unit changeover
Reaction:	NONE
Acknowledge:	IMMEDIATELY
Cause:	The trace parameterization in the drive unit was deleted due to a unit changeover or a change in the reference parameters.
Remedy:	Restart trace.
A02150	OA: Application cannot be loaded
Reaction:	NONE
Acknowledge:	NONE
Cause:	The system was not able to load an OA application. Alarm value (r2124, interpret hexadecimal): Only for internal Siemens troubleshooting.
Remedy:	- carry out a POWER ON (power off/on) for all components. - upgrade firmware to later version. - contact the Hotline. Note: OA: Open Architecture
F02151 (A)	OA: Internal software error
Reaction:	OFF2 (NONE, OFF1, OFF3)
Acknowledge:	IMMEDIATELY (POWER ON)
Cause:	An internal software error has occurred within an OA application. Fault value (r0949, interpret hexadecimal): Only for internal Siemens troubleshooting.
Remedy:	- carry out a POWER ON (power off/on) for all components. - upgrade firmware to later version. - contact the Hotline. - replace the Control Unit. Note: OA: Open Architecture
F02152 (A)	OA: Insufficient memory
Reaction:	OFF1
Acknowledge:	IMMEDIATELY (POWER ON)
Cause:	Too many functions have been configured on this Control Unit (e.g. too many drives, function modules, data sets, OA applications, blocks, etc). Fault value (r0949, decimal interpretation): Only for internal Siemens troubleshooting.
Remedy:	- change the configuration on this Control Unit (e.g. fewer drives, function modules, data sets, OA applications, blocks, etc). - use an additional Control Unit. Note: OA: Open Architecture

F03000	NVRAM fault on action
Reaction:	NONE
Acknowledge:	IMMEDIATELY
Cause:	<p>A fault occurred during execution of action p7770 = 1, 2 for the NVRAM data. Fault value (r0949, interpret hexadecimal): yyxx hex: yy = fault cause, xx = application ID yy = 1: The action p7770 = 1 is not supported by this version if Drive Control Chart (DCC) is activated for the drive object concerned. yy = 2: The data length of the specified application is not the same in the NVRAM and the backup. yy = 3: The data checksum in p7774 is not correct. yy = 4: No data available to load.</p>
Remedy:	<p>Perform the remedy according to the results of the troubleshooting. If necessary, start the action again.</p>

F03001	NVRAM checksum incorrect
Reaction:	NONE
Acknowledge:	IMMEDIATELY
Cause:	<p>A checksum error occurred when evaluating the non-volatile data (NVRAM) on the Control Unit. The NVRAM data affected was deleted.</p>
Remedy:	POWER ON all components (switch the power off and then back on again).

F03505 (N, A)	CU: Analog input wire breakage
Reaction:	OFF1 (NONE, OFF2)
Acknowledge:	IMMEDIATELY (POWER ON)
Cause:	<p>The input current of the analog input has undershot the threshold value parameterized in p0761[0...3]. This fault only occurs when p0756[0...1] = 1 (2 ... 10 V with monitoring) or p0756[0...2] = 3 (4 ... 20 mA with monitoring) is set. p0756[0]: Analog input 0 p0756[1]: Analog input 1 p0756[2]: Analog input 2 Fault value (r0949, decimal interpretation): The component number (p0151) of the component involved is specified at the units, tens and hundreds digit. The thousands digit specifies the relevant analog input: 0: analog input 0 (AI 0), 1: analog input 1 (AI 1), 2: analog input 2 (AI 2)</p>
Remedy:	<p>Check the connection to the signal source for interruptions. Check the magnitude of the injected current - it is possible that the infed signal is too low. The input current measured by the analog input can be read in r0752[x].</p>

A03510 (F, N)	CU: Calibration data not plausible
Reaction:	NONE
Acknowledge:	NONE
Cause:	<p>During booting, the calibration data for the analog inputs is read and checked with respect to plausibility. At least one calibration data point was determined to be invalid.</p>
Remedy:	<p>- power down/power up the power supply for the Control Unit. If it reoccurs, replace the module. In principle, operation could continue. The analog channel involved possibly does not achieve the specified accuracy.</p>

A03520 (F, N)	CU: Temperature sensor fault
Reaction:	NONE
Acknowledge:	NONE
Cause:	When evaluating the temperature sensor, an error occurred. It is expected that an Ni1000 temperature sensor (p0756[2...3] = 6) or PT1000 p0756[2...3] = 7 is connected via the analog input. Alarm value (r2124, interpret decimal): 33: Analog input 2 (AI2) wire breakage or sensor not connected. 34: Analog input 2 (AI2) measured resistance too low (short circuit). 49: Analog input 3 (AI3) wire breakage or sensor not connected. 50: Analog input 3 (AI3) measured resistance too low (short circuit). See also: p0756 (CU analog inputs type)
Remedy:	- make sure that the sensor is connected correctly. - check the sensor for correct function and if required, replace. - change over the analog input to type "no sensor connected" (p0756 = 8).
A05000 (N)	Power unit: Overtemperature heat sink AC inverter
Reaction:	NONE
Acknowledge:	NONE
Cause:	The alarm threshold for overtemperature at the inverter heat sink has been reached. The response is set using p0290. If the temperature of the heat sink increases by an additional 5 K, then fault F30004 is initiated.
Remedy:	Check the following: - is the ambient temperature within the defined limit values? - have the load conditions and the load duty cycle been appropriately dimensioned? - has the cooling failed?
A05001 (N)	Power unit: Overtemperature depletion layer chip
Reaction:	NONE
Acknowledge:	NONE
Cause:	Alarm threshold for overtemperature of the power semiconductor in the AC converter has been reached. Note: - The response is set using p0290. - If the depletion layer temperature increases by an additional 15 K, then fault F30025 is triggered.
Remedy:	Check the following: - is the ambient temperature within the defined limit values? - have the load conditions and the load duty cycle been appropriately dimensioned? - has the cooling failed? - pulse frequency too high? See also: r0037 (Power unit temperatures), p0290 (Power unit overload response)
A05002 (N)	Power unit: Air intake overtemperature
Reaction:	NONE
Acknowledge:	NONE
Cause:	For chassis power units, the following applies: The alarm threshold for the air intake overtemperature has been reached. For air-cooled power units, the threshold is 42 °C (hysteresis 2 K). The response is set using p0290. If the air intake temperature increases by an additional 13 K, then fault F30035 is output.
Remedy:	Check the following: - is the ambient temperature within the defined limit values? - has the fan failed? Check the direction of rotation.

A05003 (N)	Power unit: Internal overtemperature
Reaction:	NONE
Acknowledge:	NONE
Cause:	For chassis power units, the following applies: The alarm threshold for internal overtemperature has been reached. If the temperature inside the power unit increases by an additional 5 K, then fault F30036 is triggered.
Remedy:	Check the following: - is the ambient temperature within the defined limit values? - has the fan failed? Check the direction of rotation.

A05004 (N)	Power unit: Rectifier overtemperature
Reaction:	NONE
Acknowledge:	NONE
Cause:	The alarm threshold for the overtemperature of the rectifier has been reached. The response is set using p0290. If the temperature of the rectifier increases by an additional 5 K, then fault F30037 is triggered.
Remedy:	Check the following: - is the ambient temperature within the defined limit values? - have the load conditions and the load duty cycle been appropriately dimensioned? - has the fan failed? Check the direction of rotation. - has a phase of the line supply failed? - is an arm of the supply (incoming) rectifier defective?

A05006 (N)	Power unit: Overtemperature thermal model
Reaction:	NONE
Acknowledge:	NONE
Cause:	The temperature difference between the chip and heat sink has exceeded the permissible limit value (blocksize power units only). Depending on p0290, an appropriate overload response is initiated. See also: r0037 (Power unit temperatures)
Remedy:	Not necessary. The alarm disappears automatically once the limit value is undershot. Note: If the alarm does not disappear automatically and the temperature continues to rise, this can result in fault F30024. See also: p0290 (Power unit overload response)

F06310 (A)	Supply voltage (p0210) incorrectly parameterized
Reaction:	NONE (OFF1, OFF2)
Acknowledge:	IMMEDIATELY (POWER ON)
Cause:	The measured DC voltage lies outside the tolerance range after pre-charging has been completed: $1.16 * p0210 < r0070 < 1.6 * p0210$. The fault can only be acknowledged when the drive is powered down. See also: p0210 (Drive unit line supply voltage)
Remedy:	- check the parameterized supply voltage and if required change (p0210). - check the line supply voltage. See also: p0210 (Drive unit line supply voltage)

A06921 (N)	Braking resistor phase unsymmetry
Reaction:	NONE
Acknowledge:	NONE
Cause:	The three resistors of the braking chopper are not symmetrical.
Remedy:	- check the feeder cables to the braking resistors. - increase p1364.

F06922	Braking resistor phase failure
Reaction:	NONE
Acknowledge:	IMMEDIATELY
Cause:	Phase failure of a braking resistor detected. Fault values: 11 = phase U 12 = phase V 13 = phase W See also: p3235 (Phase failure signal motor monitoring time)
Remedy:	Check the feeder cables to the braking resistors.
F07011	Drive: Motor overtemperature
Reaction:	OFF2 (NONE, OFF1, OFF3, STOP2)
Acknowledge:	IMMEDIATELY
Cause:	KTY: The motor temperature has exceeded the fault threshold (p0605) or the timer (p0606) after the alarm threshold was exceeded (p0604) has expired. The response parameterized in p0610 becomes active. The alarm is withdrawn if the response threshold for wire breakage or sensor not connected is exceeded ($R > 2120 \text{ Ohm}$). PTC or bimetallic NC contact: The response threshold of 1650 Ohm was exceeded or the NC contact opened and the timer (p0606) has expired. The response parameterized in p0610 becomes active. Possible causes: - Motor is overloaded - motor ambient temperature too high. - Wire break or sensor not connected Fault value (r0949, decimal interpretation): 200: The I2t motor model signals an overtemperature ($p0612.0 = 1, p0611 > 0$). See also: p0604 (Motor temperature alarm threshold), p0605 (Motor temperature fault threshold), p0606 (Motor temperature timer), p0610 (Motor overtemperature response)
Remedy:	- Reduce the motor load. - check the ambient temperature and the motor ventilation. - check the wiring and the connection of the PTC or bimetallic NC contact. See also: p0604 (Motor temperature alarm threshold), p0605 (Motor temperature fault threshold), p0606 (Motor temperature timer)
A07012 (N)	Drive: I2t motor model overtemperature
Reaction:	NONE
Acknowledge:	NONE
Cause:	The thermal I2t motor model (for synchronous motors) identified that the temperature alarm threshold was exceeded. See also: r0034 (Motor utilization), p0605 (Motor temperature fault threshold), p0611 (I2t motor model thermal time constant)
Remedy:	- check the motor load and if required, reduce. - check the motor ambient temperature. - check the thermal time constant p0611. - check the overtemperature fault threshold p0605 (= alarm threshold for the I2t motor model, see p0612)
A07015	Drive: Motor temperature sensor alarm
Reaction:	NONE
Acknowledge:	NONE
Cause:	An error was detected when evaluating the temperature sensor set in p0601. With the fault, the time in p0607 is started. If the fault is still present after this time has expired, then fault F07016 is output; however, at the earliest, 50 ms after alarm A07015. Possible causes: - wire breakage or sensor not connected (KTY: $R > 2120 \text{ Ohm}$). - measured resistance too low (PTC: $R < 20 \text{ Ohm}$, KTY: $R < 50 \text{ Ohm}$).
Remedy:	- make sure that the sensor is connected correctly. - check the parameterization (p0601). See also: r0035 (Motor temperature), p0601 (Motor temperature sensor type), p0607 (Temperature sensor fault timer)

F07016 Drive: Motor temperature sensor fault**Reaction:** OFF1 (NONE, OFF2, OFF3, STOP2)**Acknowledge:** IMMEDIATELY**Cause:** An error was detected when evaluating the temperature sensor set in p0601.

Possible causes:

- wire breakage or sensor not connected (KTY: $R > 2120 \text{ Ohm}$).
- measured resistance too low (PTC: $R < 20 \text{ Ohm}$, KTY: $R < 50 \text{ Ohm}$).

Note:

If alarm A07015 is present, the time in p0607 is started. If the fault is still present after this time has expired, then fault F07016 is output; however, at the earliest, 50 ms after alarm A07015.

See also: p0607 (Temperature sensor fault timer)

Remedy:

- make sure that the sensor is connected correctly.
 - check the parameterization (p0601).
 - induction motors: De-activate temperature sensor fault (p0607 = 0).
- See also: r0035 (Motor temperature), p0601 (Motor temperature sensor type), p0607 (Temperature sensor fault timer)
-

F07080 Drive: Incorrect control parameter**Reaction:** NONE**Acknowledge:** IMMEDIATELY (POWER ON)**Cause:** The closed-loop control parameters have been parameterized incorrectly (e.g. p0356 = L_spread = 0).

Fault value (r0949, decimal interpretation):

The fault value includes the parameter number involved.

The following parameter numbers only occur as fault values for vector drives:

p0310, for synchronous motors: p0341, p0344, p0350, p0357

The following parameter numbers do not occur as fault values for synchronous motors:

p0354, p0358, p0360

See also: p0310, p0311, p0341, p0344, p0350, p0354, p0356, p0357, p0358, p0360, p0640, p1082, p1300

Remedy:

Modify the parameter indicated in the fault value (r0949) (e.g. p0640 = current limit > 0).

See also: p0311, p0341, p0344, p0350, p0354, p0356, p0358, p0360, p0640, p1082

F07082 Macro: Execution not possible

Reaction: NONE

Acknowledge: IMMEDIATELY

Cause: The macro cannot be executed.
 Fault value (r0949, interpret hexadecimal):
 ccccbbaa hex:
 cccc = preliminary parameter number, bb = supplementary information, aa = fault cause
 Fault causes for the trigger parameter itself:
 19: Called file is not valid for the trigger parameter.
 20: Called file is not valid for parameter 15.
 21: Called file is not valid for parameter 700.
 22: Called file is not valid for parameter 1000.
 23: Called file is not valid for parameter 1500.
 24: Data type of a TAG is incorrect (e.g. Index, number or bit is not U16).
 Fault causes for the parameters to be set:
 25: Error level has an undefined value.
 26: Mode has an undefined value.
 27: A value was entered as string in the tag value that is not "DEFAULT".
 31: Entered drive object type unknown.
 32: A device was not able to be found for the determined drive object number.
 34: A trigger parameter was recursively called.
 35: It is not permissible to write to the parameter via macro.
 36: Check, writing to a parameter unsuccessful, parameter can only be read, not available, incorrect data type, value range or assignment incorrect.
 37: Source parameter for a BICO interconnection was not able to be determined.
 38: An index was set for a non-indexed (or CDS-dependent) parameter.
 39: No index was set for an indexed parameter.
 41: A bit operation is only permissible for parameters with the parameter format DISPLAY_BIN.
 42: A value not equal to 0 or 1 was set for a BitOperation.
 43: Reading the parameter to be changed by the BitOperation was unsuccessful.
 51: Factory setting for DEVICE may only be executed on the DEVICE.
 61: The setting of a value was unsuccessful.

Remedy: - check the parameter involved.
 - check the macro file and BICO interconnection.
 See also: p0015, p0700, p1000, p1500

F07083 Macro: ACX file not found

Reaction: NONE

Acknowledge: IMMEDIATELY

Cause: The ACX file (macro) to be executed was not able to be found in the appropriate directory.
 Fault value (r0949, decimal interpretation):
 Parameter number with which the execution was started.
 See also: p0015, p0700, p1000, p1500

Remedy: - check whether the file is saved in the appropriate directory on the memory card.

F07084 Macro: Condition for WaitUntil not fulfilled

Reaction: NONE

Acknowledge: IMMEDIATELY

Cause: The WaitUntil condition set in the macro was not fulfilled in a certain number of attempts.
 Fault value (r0949, decimal interpretation):
 Parameter number for which the condition was set.

Remedy: Check and correct the conditions for the WaitUntil loop.

F07086	Units changeover: Parameter limit violation due to reference value change
Reaction:	NONE
Acknowledge:	IMMEDIATELY
Cause:	A reference parameter was changed in the system. This resulted in the fact that for the parameters involved, the selected value was not able to be written in the per unit representation (cause: e.g. the steady-state minimum/maximum limit or that defined in the application was violated). The values of the parameters were set to the corresponding violated minimum/maximum limit or to the factory setting. Fault value (r0949, parameter): Diagnostics parameter r9450 to display the parameters that were not able to be re-calculated. See also: p0304, p0305, p0310, p0596, p2000, p2001, p2002, p2003, r2004
Remedy:	Check the adapted parameter value and if required correct.
F07088	Units changeover: Parameter limit violation due to units changeover
Reaction:	NONE
Acknowledge:	IMMEDIATELY
Cause:	A changeover of units was initiated. Possible causes for the violation of a parameter limit are: - when rounding off a parameter corresponding to its decimal places, the steady-state minimum or maximum limit was violated. - inaccuracies for the data type "FloatingPoint". In these cases, when the minimum limit is violated then the parameter value is rounded up and when the maximum limited is violated the parameter value is rounded down. Fault value (r0949, decimal interpretation): Diagnostics parameter r9451 to display all parameters whose value had to be adapted. See also: p0100 (IEC/NEMA mot stds), p0505 (Selecting the system of units), p0595 (Selecting technological units)
Remedy:	Check the adapted parameter values and if required correct. See also: r9451 (Units changeover adapted parameters)
A07089	Changing over units: Function module activation is blocked because the units have been changed over
Reaction:	NONE
Acknowledge:	NONE
Cause:	An attempt was made to activate a function module. This is not permissible if the units have already been changed over. See also: p0100 (IEC/NEMA mot stds), p0505 (Selecting the system of units)
Remedy:	Restore units that have been changed over to the factory setting.
A07200	Drive: Master control ON command present
Reaction:	NONE
Acknowledge:	NONE
Cause:	The ON/1 command is present (no 0 signal). The command is either influenced via binector input p0840 (current CDS) or control word bit 0 via the master control.
Remedy:	Switch the signal via binector input p0840 (aktueller CDS) or control word bit 0 via the master control to 0.
F07220 (N, A)	Drive: Master control by PLC missing
Reaction:	OFF1 (NONE, OFF2, OFF3, STOP2)
Acknowledge:	IMMEDIATELY
Cause:	The "master control by PLC" signal was missing in operation. - interconnection of the binector input for "master control by PLC" is incorrect (p0854). - the higher-level control has withdrawn the "master control by PLC" signal. - data transfer via the fieldbus (master/drive) was interrupted.
Remedy:	- check the interconnection of the binector input for "master control by PLC" (p0854). - check the "master control by PLC" signal and, if required, switch in. - check the data transfer via the fieldbus (master/drive). Note: If the drive should continue to operate after withdrawing "master control by PLC" then fault response must be parameterized to NONE or the message type should be parameterized as alarm.

F07311	Bypass motor switch
Reaction:	OFF2
Acknowledge:	IMMEDIATELY
Cause:	<p>Fault value (r0949, interpret bitwise binary): Bit 1: Switch "Closed" feedback signal missing. Bit 2: Switch "Open" feedback signal missing. Bit 3: Switch feedback signal too slow. After switching, the system waits for the positive feedback signal. If the feedback signal is received later than the specified time, then a fault trip (shutdown) is issued. Bit 6: Drive switch feedback signal not consistent with the bypass state. When powering up or for staging, the drive switch is closed. See also: p1260 (Bypass configuration), r1261 (Bypass control/status word), p1266 (Bypass, control command), p1267 (Bypass changeover source configuration), p1269 (Bypass switch feedback signal), p1274 (Bypass switch monitoring time)</p>
Remedy:	<ul style="list-style-type: none"> - check the transfer of the feedback signals. - check the switch.
F07312	Bypass LSS:
Reaction:	OFF2
Acknowledge:	IMMEDIATELY
Cause:	<p>Fault value (r0949, interpret bitwise binary): Bit 1: Switch "Closed" feedback signal missing. Bit 2: Switch "Open" feedback signal missing. Bit 3: Switch feedback signal too slow. After switching, the system waits for the positive feedback signal. If the feedback signal is received later than the specified time, then a fault trip (shutdown) is issued. Bit 6: Line Side Switch feedback signal not consistent with the bypass state. When powering up or for staging, the Line Side Switch is closed without this having been requested from the bypass. See also: p1260 (Bypass configuration), r1261 (Bypass control/status word), p1266 (Bypass, control command), p1267 (Bypass changeover source configuration), p1269 (Bypass switch feedback signal), p1274 (Bypass switch monitoring time)</p>
Remedy:	<ul style="list-style-type: none"> - check the transfer of the feedback signals. - check the switch.
F07320	Drive: Automatic restart interrupted
Reaction:	OFF2
Acknowledge:	IMMEDIATELY
Cause:	<ul style="list-style-type: none"> - The specified number of restart attempts (p1211) has been completely used up because within the monitoring time (p1213) the faults were not able to be acknowledged. The number of restart attempts (p1211) is decremented at each new start attempt. - there is no active ON command. - the monitoring time for the power unit has expired (p0857). - when exiting commissioning or at the end of the motor identification routine or the speed controller optimization, the drive unit is not automatically powered up again. <p>Fault value (r0949, interpret hexadecimal): Only for internal Siemens troubleshooting.</p>
Remedy:	<ul style="list-style-type: none"> - increase the number of restart attempts (p1211). The actual number of starting attempts is displayed in r1214. - increase the delay time in p1212 and/or the monitoring time in p1213. - issue an ON command (p0840). - either increase or disable the monitoring time of the power unit (p0857). - Reduce the delay time for resetting the start counter p1213[1] so that fewer faults are registered in the time interval.

A07321	Drive: Automatic restart active
Reaction:	NONE
Acknowledge:	NONE
Cause:	The automatic restart (AR) is active. When the line supply returns and/or the causes of the existing faults are removed the drive is automatically restarted. The pulses are enabled and the motor starts to rotate. For p1210 = 26, the alarm after the line supply returns is also displayed if there is no fault and there is no ON command. Restarting is realized with the delayed setting of the ON command.
Remedy:	- the automatic restart (AR) should, if required, be inhibited (p1210 = 0). - an automatic restart can be directly interrupted by withdrawing the power-on command (BI: p0840). - for p1210 = 26: by withdrawing the OFF2- / OFF3 control commands.
A07325	Drive: Hibernation active - drive re-activated automatically
Reaction:	NONE
Acknowledge:	NONE
Cause:	The hibernation function is active (p2398). The drive automatically powers itself up again as soon as the restart conditions are present. See also: p2398 (Hibernation operating mode), r2399 (Hibernation status word)
Remedy:	Not necessary. The alarm disappears when the motor is restarted automatically or switched off manually.
F07330	Flying restart: Measured search current too low
Reaction:	OFF2 (NONE, OFF1)
Acknowledge:	IMMEDIATELY
Cause:	During a flying restart, it was identified that the search current reached is too low. It is possible that the motor is not connected.
Remedy:	Check the motor feeder cables.
F07331	Flying restart: Function not supported
Reaction:	OFF2 (NONE, OFF1)
Acknowledge:	IMMEDIATELY
Cause:	It is not possible to power up with the motor rotating (no flying restart). In the following cases, the "flying restart" function is not supported: Perm.-magnet synch. motors (PEM): operation with U/f char. and sensorless vector control.
Remedy:	Cancel the "flying restart" function (p1200 = 0).
A07400 (N)	Drive: DC link voltage maximum controller active
Reaction:	NONE
Acknowledge:	NONE
Cause:	The DC link voltage controller has been activated because the upper switch-in threshold has been exceeded (r1242, r1282). The ramp-down times are automatically increased in order to maintain the DC link voltage (r0070) within the permissible limits. There is a system deviation between the setpoint and actual speeds. When the DC link voltage controller is switched out (disabled), this is the reason that the ramp-function generator output is set to the speed actual value. See also: r0056 (Status word, closed-loop control), p1240 (Vdc controller or Vdc monitoring configuration (vector control)), p1280 (Vdc controller or Vdc monitoring configuration (U/f))
Remedy:	If the controller is not to intervene: - increase the ramp-down times. - switch-off the Vdc_max controller (p1240 = 0 for vector control, p1280 = 0 for U/f control). If the ramp-down times are not to be changed: - use a chopper or regenerative feedback unit.

A07401 (N)	Drive: DC link voltage maximum controller de-activated
Reaction:	NONE
Acknowledge:	NONE
Cause:	The Vdc_max controller can no longer maintain the DC link voltage (r0070) below the limit value (r1242, r1282) and was therefore switched out (disabled). - the line supply voltage is permanently higher than specified for the power unit. - the motor is permanently in the regenerative mode as a result of a load that is driving the motor.
Remedy:	- check whether the input voltage is within the permissible range. - check whether the load duty cycle and load limits are within the permissible limits.
A07402 (N)	Drive: DC link voltage minimum controller active
Reaction:	NONE
Acknowledge:	NONE
Cause:	The DC link voltage controller has been activated as the lower switch-in threshold has been undershot (r1246, r1286). The kinetic energy of the motor is used to buffer the DC link. The drive is therefore braked. See also: r0056 (Status word, closed-loop control), p1240 (Vdc controller or Vdc monitoring configuration (vector control)), p1280 (Vdc controller or Vdc monitoring configuration (U/f))
Remedy:	The alarm disappears when power supply returns.
F07405 (N, A)	Drive: Kinetic buffering minimum speed not reached
Reaction:	OFF2 (IASC/DCBRAKE, NONE, OFF1, OFF3, STOP2)
Acknowledge:	IMMEDIATELY
Cause:	During kinetic buffering the speed fell below minimum speed (p1257 or p1297 for vector drives with U/f control) and the line supply did not return.
Remedy:	Check the speed threshold for the Vdc_min controller (kinetic buffering) (p1257, p1297). See also: p1257 (Vdc_min controller speed threshold), p1297 (Vdc_min controller speed threshold (U/f))
F07406 (N, A)	Drive: Kinetic buffering maximum time exceeded
Reaction:	OFF3 (IASC/DCBRAKE, NONE, OFF1, OFF2, STOP2)
Acknowledge:	IMMEDIATELY
Cause:	The maximum buffer time (p1255 and p1295 for vector drives with U/f control) has been exceeded without the line supply having returned.
Remedy:	Check the time threshold for Vdc-min controller (kinetic buffering) (p1255, p1295). See also: p1255 (Vdc_min controller time threshold), p1295 (Vdc_min controller time threshold (U/f))
A07409	Drive: U/f control, current limiting controller active
Reaction:	NONE
Acknowledge:	NONE
Cause:	The current limiting controller of the U/f control was activated because the current limit was exceeded.
Remedy:	The alarm automatically disappears after one of the following measures: - increase current limit (p0640). - reduce the load. - slow down the ramp up to the setpoint speed.

F07410 Drive: Current controller output limited

Reaction: OFF2 (NONE, OFF1)

Acknowledge: IMMEDIATELY

Cause: The condition " $I_{act} = 0$ and $U_{q_set_1}$ longer than 16 ms at its limit" is present and can be caused by the following:

- motor not connected or motor contactor open.
- motor data and motor configuration (star-delta) do not match.
- no DC link voltage present.
- power unit defective.
- the "flying restart" function is not activated.

Remedy:

- connect the motor or check the motor contactor.
- check the motor parameterization and the connection type (star-delta).
- check the DC link voltage (r0070).
- check the power unit.
- activate the "flying restart" function (p1200).

F07411 Drive: Flux controller output limited

Reaction: OFF2

Acknowledge: IMMEDIATELY

Cause: When quick magnetizing is configured ($p1401.6 = 1$) the specified flux setpoint is not reached although 90% of the maximum current is specified.

- incorrect motor data.
- motor data and motor configuration (star-delta) do not match.
- the current limit has been set too low for the motor.
- induction motor (encoderless, open-loop controlled) in I_{2t} limiting.
- power unit is too small.
- the magnetizing time is too short.

Remedy:

- correct the motor data. Perform motor data identification and rotating measurement.
- check the motor configuration.
- correct the current limits (p0640).
- reduce the induction motor load.
- if necessary, use a larger power unit.
- check motor supply cable.
- check power unit.
- increase p0346.

A07416 Drive: Flux controller configuration

Reaction: NONE

Acknowledge: NONE

Cause: The configuration of the flux control (p1401) is contradictory.
Alarm value (r2124, interpret hexadecimal):
ccbbaaaa hex
aaaa = Parameter
bb = Index
cc = fault cause
1: Quick magnetizing (p1401.6) for soft starting (p1401.0).
3: Quick magnetizing (p1401.6) for Rs identification after restart (p0621 = 2).

Remedy:

Re fault cause = 1:

- Shut down soft start (p1401.0 = 0).
- Shut down quick magnetizing (p1401.6 = 0).

Re fault cause = 3:

- Re-parameterize Rs identification (p0621 = 0, 1)
- Shut down quick magnetizing (p1401.6 = 0).

F07426 (A)	Technology controller actual value limited
Reaction:	OFF1 (IASC/DCBRAKE, NONE, OFF2, OFF3)
Acknowledge:	IMMEDIATELY
Cause:	The actual value for the technology controller, interconnected via connector input p2264, has reached a limit. Fault value (r0949, decimal interpretation): 1: upper limit reached. 2: lower limit reached.
Remedy:	- adapt the limits to the signal level (p2267, p2268). - check the scaling of the actual value (p2264). See also: p2264 (Technology controller actual value), p2267 (Technology controller upper limit actual value), p2268 (Technology controller lower limit actual value)
A07427	Motor staging alarm
Reaction:	NONE
Acknowledge:	NONE
Cause:	Alarm value (r2124, interpret decimal): 1: The technology controller is not active or is not being used to control the main setpoint (see p2251). 2: The operating time limits have been exceeded in at least one external motor.
Remedy:	Re alarm value = 1: - enable technology controller (p2200). - set technology controller mode p2251 = 0 (main setpoint). Re alarm value = 2: - increase p2381, p2382 or set p2380 = 0.
F07435 (N)	Drive: Setting the ramp-function generator for sensorless vector control
Reaction:	OFF2 (IASC/DCBRAKE, NONE, OFF1, OFF3)
Acknowledge:	IMMEDIATELY
Cause:	During operation with sensorless vector control (r1407.1) the ramp-function generator was stopped (p1141). An internal setting command of the ramp-function generator output caused the set setpoint speed to be frozen.
Remedy:	- de-activate the holding command for the ramp-function generator (p1141). - suppress the fault (p2101, p2119). This is necessary if the ramp-function generator is held using jogging and the speed setpoint is simultaneously inhibited (r0898.6).
F07436 (A)	Free tec_ctrl 0 actual value limited
Reaction:	OFF1 (IASC/DCBRAKE, NONE, OFF2, OFF3)
Acknowledge:	IMMEDIATELY
Cause:	The actual value for the free technology controller 0 has reached the limit. The signal source for the actual value is set via connector input p11064. Fault value (r0949, decimal interpretation): 1: The actual value has reached the upper limit. 2: The actual value has reached the lower limit.
Remedy:	- adapt the limit settings to the actual value signal (p11067, p11068). - check the scaling of the actual value signal. - check the signal source setting for the actual value (p11064). See also: p11064 (Free tec_ctrl 0 actual value signal source), p11067 (Free tec_ctrl 0 actual value upper limit), p11068 (Free tec_ctrl 0 actual value lower limit)

F07437 (A)	Free tec_ctrl 1 actual value limited
Reaction:	OFF1 (IASC/DCBRAKE, NONE, OFF2, OFF3)
Acknowledge:	IMMEDIATELY
Cause:	The actual value for the free technology controller 1 has reached the limit. The signal source for the actual value is set via connector input p11164. Fault value (r0949, decimal interpretation): 1: The actual value has reached the upper limit. 2: The actual value has reached the lower limit.
Remedy:	- adapt the limit settings to the actual value signal (p11167, p11168). - check the scaling of the actual value signal. - check the signal source setting for the actual value (p11164). See also: p11164 (Free tec_ctrl 1 actual value signal source), p11167 (Free tec_ctrl 1 actual value upper limit), p11168 (Free tec_ctrl 1 actual value lower limit)

F07438 (A)	Free tec_ctrl 2 actual value limited
Reaction:	OFF1 (IASC/DCBRAKE, NONE, OFF2, OFF3)
Acknowledge:	IMMEDIATELY
Cause:	The actual value for the free technology controller 2 has reached the limit. The signal source for the actual value is set via connector input p11264. Fault value (r0949, decimal interpretation): 1: The actual value has reached the upper limit. 2: The actual value has reached the lower limit.
Remedy:	- adapt the limit settings to the actual value signal (p11267, p11268). - check the scaling of the actual value signal. - check the signal source setting for the actual value (p11264). See also: p11264 (Free tec_ctrl 2 actual value signal source), p11267 (Free tec_ctrl 2 actual value upper limit), p11268 (Free tec_ctrl 2 actual value lower limit)

A07530	Drive: Drive Data Set DDS not present
Reaction:	NONE
Acknowledge:	NONE
Cause:	The selected drive data set is not available (p0837 > p0180). The drive data set was not changed over. See also: p0180 (Number of Drive Data Sets (DDS)), p0820 (Drive Data Set selection DDS bit 0), p0821 (Drive Data Set selection DDS bit 1), r0837 (Drive Data Set DDS selected)
Remedy:	- select the existing drive data set. - set up additional drive data sets.

A07531	Drive: Command Data Set CDS not present
Reaction:	NONE
Acknowledge:	NONE
Cause:	The selected command data set is not available (p0836 > p0170). The command data set was not changed over. See also: p0810 (Command data set selection CDS bit 0), p0811 (Command data set selection CDS bit 1), r0836 (Command Data Set CDS selected)
Remedy:	- select the existing command data set. - set up additional command data sets.

F07800	Drive: No power unit present
Reaction:	NONE
Acknowledge:	IMMEDIATELY
Cause:	The power unit parameters cannot be read or no parameters are stored in the power unit. Connection between Control Unit and power unit was interrupted or is defective. Note: This fault also occurs if an incorrect topology was selected in the commissioning software and this parameterization is then downloaded to the Control Unit. See also: r0200 (Power unit code number actual)
Remedy:	<ul style="list-style-type: none"> - connect the data line to power unit and restart the CU (POWER ON). - check or replace the CU. - Check the cable between the CU and power unit. - after correcting the topology, the parameters must be again downloaded using the commissioning software.
F07801	Drive: Motor overcurrent
Reaction:	OFF2 (NONE, OFF1, OFF3)
Acknowledge:	IMMEDIATELY
Cause:	The permissible motor limit current was exceeded. <ul style="list-style-type: none"> - effective current limit set too low. - current controller not correctly set. - U/f operation: Up ramp was set too short or the load is too high. - U/f operation: Short-circuit in the motor cable or ground fault. - U/f operation: Motor current does not match current of power unit. - Switch to rotating motor without flying restart function (p1200). Note: Limit current = 2 x minimum (p0640, 4 x p0305 x p0306) >= 2 x p0305 x p0306
Remedy:	<ul style="list-style-type: none"> - check the current limits (p0640). - vector control: Check the current controller (p1715, p1717). - U/f control: Check the current limiting controller (p1340 ... p1346). - increase the up ramp (p1120) or reduce the load. - check the motor and motor cables for short-circuit and ground fault. - check the motor for the star-delta configuration and rating plate parameterization. - check the power unit and motor combination. - Choose "flying restart" function (p1200) if switched to rotating motor.
F07802	Drive: Infeed or power unit not ready
Reaction:	OFF2 (NONE)
Acknowledge:	IMMEDIATELY
Cause:	After an internal power-on command, the infeed or drive does not signal ready. <ul style="list-style-type: none"> - monitoring time is too short. - DC link voltage is not present. - associated infeed or drive of the signaling component is defective. - supply voltage incorrectly set.
Remedy:	<ul style="list-style-type: none"> - increase the monitoring time (p0857). - ensure that there is a DC link voltage. Check the DC link busbar. Enable the infeed. - replace the associated infeed or drive of the signaling component. - check the line supply voltage setting (p0210). See also: p0857 (Power unit monitoring time)
A07805 (N)	Drive: Power unit overload I2t
Reaction:	NONE
Acknowledge:	NONE
Cause:	Alarm threshold for I2t overload (p0294) of the power unit exceeded. The response parameterized in p0290 becomes active. See also: p0290 (Power unit overload response)
Remedy:	<ul style="list-style-type: none"> - reduce the continuous load. - adapt the load duty cycle. - check the assignment of the motor and power unit rated currents.

F07806	Drive: Regenerative power limit exceeded (F3E)
Reaction:	OFF2 (IASC/DCBRAKE)
Acknowledge:	IMMEDIATELY
Cause:	For blocksize power units, types PM250 and PM260, the regenerative rated power r0206[2] was exceeded for more than 10 s. See also: r0206 (Rated power unit power), p1531 (Power limit regenerative)
Remedy:	- increase the down ramp. - reduce the driving load. - use a power unit with a higher regenerative feedback capability. - for vector control, the regenerative power limit in p1531 can be reduced so that the fault is no longer triggered.
F07807	Drive: Short-circuit detected
Reaction:	OFF2 (NONE)
Acknowledge:	IMMEDIATELY
Cause:	A phase-phase short-circuit was detected at the motor-side output terminals of the converter. Note: Also when interchanging the line and motor cables is identified as a motor-side short circuit.
Remedy:	- check the motor-side converter connection for a phase-phase short-circuit. - rule-out interchanged line and motor cables.
F07808 (A)	HF damping module: damping not ready
Reaction:	OFF2 (NONE, OFF1, OFF3)
Acknowledge:	IMMEDIATELY
F07810	Drive: Power unit EEPROM without rated data
Reaction:	NONE
Acknowledge:	IMMEDIATELY
Cause:	No rated data are stored in the power unit EEPROM. See also: p0205 (Power unit application), r0206 (Rated power unit power), r0207 (Rated power unit current), r0208 (Rated power unit line supply voltage), r0209 (Power unit, maximum current)
Remedy:	Replace the power unit or inform Siemens Customer Service.
A07850 (F)	External alarm 1
Reaction:	NONE
Acknowledge:	NONE
Cause:	The BICO signal for "external alarm 1" was triggered. The condition for this external alarm is fulfilled. See also: p2112 (External alarm 1)
Remedy:	Eliminate the causes of this alarm.
A07851 (F)	External alarm 2
Reaction:	NONE
Acknowledge:	NONE
Cause:	The BICO signal for "external alarm 2" was triggered. The condition for this external alarm is fulfilled. See also: p2116 (External alarm 2)
Remedy:	Eliminate the causes of this alarm.
A07852 (F)	External alarm 3
Reaction:	NONE
Acknowledge:	NONE
Cause:	The BICO signal for "external alarm 3" was triggered. The condition for this external alarm is fulfilled. See also: p2117 (External alarm 3)
Remedy:	Eliminate the causes of this alarm.

F07860 (A)	External fault 1
Reaction:	OFF2 (IASC/DCBRAKE, NONE, OFF1, OFF3, STOP2)
Acknowledge:	IMMEDIATELY (POWER ON)
Cause:	The BICO signal "external fault 1" was triggered. See also: p2106 (External fault 1)
Remedy:	Eliminate the causes of this fault.
F07861 (A)	External fault 2
Reaction:	OFF2 (IASC/DCBRAKE, NONE, OFF1, OFF3, STOP2)
Acknowledge:	IMMEDIATELY (POWER ON)
Cause:	The BICO signal "external fault 2" was triggered. See also: p2107 (External fault 2)
Remedy:	Eliminate the causes of this fault.
F07862 (A)	External fault 3
Reaction:	OFF2 (IASC/DCBRAKE, NONE, OFF1, OFF3, STOP2)
Acknowledge:	IMMEDIATELY (POWER ON)
Cause:	The BICO signal "external fault 3" was triggered. See also: p2108 (External fault 3), p3111 (External fault 3, enable), p3112 (External fault 3 enable negated)
Remedy:	Eliminate the causes of this fault.
F07900 (N, A)	Drive: Motor blocked
Reaction:	OFF2 (NONE, OFF1, OFF3, STOP2)
Acknowledge:	IMMEDIATELY
Cause:	Motor has been operating at the torque limit longer than the time specified in p2177 and below the speed threshold in p2175. This signal can also be triggered if the speed is oscillating and the speed controller output repeatedly goes to its limit. It may also be the case that thermal monitoring of the power unit reduces the current limit (see p0290), thereby causing the motor to decelerate. See also: p2175 (Motor locked speed threshold), p2177 (Motor locked delay time)
Remedy:	- check that the motor can rotate freely. - check the torque limit: For a positive direction of rotation r1538, for a negative direction of rotation r1539. - check the parameter, message "Motor locked" and if required, correct (p2175, p2177).
F07901	Drive: Motor overspeed
Reaction:	OFF2 (IASC/DCBRAKE)
Acknowledge:	IMMEDIATELY
Cause:	The maximum permissible speed was either positively or negatively exceeded. The maximum permissible positive speed is formed as follows: Minimum (p1082, Cl: p1085) + p2162 The maximum permissible negative speed is formed as follows: Maximum (-p1082, Cl: 1088) - p2162
Remedy:	The following applies for a positive direction of rotation: - check r1084 and if required, correct p1082, Cl:p1085 and p2162. The following applies for a negative direction of rotation: - check r1087 and if required, correct p1082, Cl:p1088 and p2162. Activate pre-control of the speed limiting controller (p1401.7 = 1). Increase the hysteresis for the overspeed signal p2162. This upper limit is dependent upon the maximum motor speed p0322 and the maximum speed p1082 of the setpoint channel.

F07902 (N, A)	Drive: Motor stalled
Reaction:	OFF2 (IASC/DCBRAKE, NONE, OFF1, OFF3, STOP2)
Acknowledge:	IMMEDIATELY
Cause:	For a vector drive the system has identified that the motor has stall for a time longer than is set in p2178. Fault value (r0949, decimal interpretation): 1: Reserved. 2: Stall detection using r1408.12 (p1745). See also: p2178 (Motor stalled delay time)
Remedy:	Steps should always be taken to ensure that both motor data identification and the rotating measurement were carried out (see p1900, r3925). - check whether the drive stalls solely due to the load in controlled mode or when the speed setpoint is still zero. If yes, then increase the current setpoint using p1610. - if the motor excitation time (p0346) was significantly reduced and the drive stalls when it is switched on and run immediately, p0346 should be increased again. - check the current limits (p0640, r0067, r0289). If the current limits are too low, then the drive cannot be magnetized. - check whether a line phase failure is affecting power unit PM230, PM250, PM260. - check whether the motor cables are disconnected (see A07929). If there is no fault, then the fault tolerance (p1745) or the delay time (p2178) can be increased.
A07903	Drive: Motor speed deviation
Reaction:	NONE
Acknowledge:	NONE
Cause:	The absolute value of the speed difference from the setpoint (p2151) and the speed actual value (r2169) exceeds the tolerance threshold (p2163) longer than tolerated (p2164, p2166). The alarm is only enabled for p2149.0 = 1. Possible causes could be: - the load torque is greater than the torque setpoint. - when accelerating, the torque/current/power limit is reached. If the limits are not sufficient, then it is possible that the drive has been dimensioned too small. - for closed-loop torque control, the speed setpoint does not track the speed actual value. - for active Vdc controller. For U/f control, the overload condition is detected as the I _{max} controller is active. See also: p2149 (Monitoring configuration)
Remedy:	- increase p2163 and/or p2166. - increase the torque/current/power limits. - for closed-loop torque control: The speed setpoint should track the speed actual value. - de-activate alarm with p2149.0 = 0.
A07910 (N)	Drive: Motor overtemperature
Reaction:	NONE
Acknowledge:	NONE
Cause:	KTY or no sensor: The measured motor temperature or the temperature of the thermal model has exceeded the alarm threshold (p0604). The response parameterized in p0610 becomes active. PTC or bimetallic NC contact: The response threshold of 1650 Ohm was exceeded or the NC contact opened. Alarm value (r2124, interpret decimal): 11: No output current reduction. 12: Output current reduction active. See also: p0604 (Motor temperature alarm threshold), p0610 (Motor overtemperature response)
Remedy:	- check the motor load. - check the motor ambient temperature. - check KTY84. - check temperatures of the thermal model (p0626 ... p0628).

A07920 Drive: Torque/speed too low

Reaction: NONE

Acknowledge: NONE

Cause: For p2193 = 1:
The torque deviates from the torque/speed envelope characteristic (too low).
For p2193 = 2:
The speed signal from the external encoder (refer to p3230) deviates from the speed (r2169) (too low).
See also: p2181 (Load monitoring response)

Remedy: - check the connection between the motor and load.
- adapt the parameterization corresponding to the load.

A07921 Drive: Torque/speed too high

Reaction: NONE

Acknowledge: NONE

Cause: For p2193 = 1:
The torque deviates from the torque/speed envelope characteristic (too high).
For p2193 = 2:
The speed signal from the external encoder (refer to p3230) deviates from the speed (r2169) (too high).

Remedy: - check the connection between the motor and load.
- adapt the parameterization corresponding to the load.

A07922 Drive: Torque/speed out of tolerance

Reaction: NONE

Acknowledge: NONE

Cause: For p2193 = 1:
The torque deviates from the torque/speed envelope characteristic.
For p2193 = 2:
The speed signal from the external encoder (refer to p3230) deviates from the speed (r2169).

Remedy: - check the connection between the motor and load.
- adapt the parameterization corresponding to the load.

F07923 Drive: Torque/speed too low

Reaction: OFF1 (NONE, OFF2, OFF3)

Acknowledge: IMMEDIATELY

Cause: For p2193 = 1:
The torque deviates from the torque/speed envelope characteristic (too low).
For p2193 = 2:
The speed signal from the external encoder (refer to p3230) deviates from the speed (r2169) (too low).

Remedy: - check the connection between the motor and load.
- adapt the parameterization corresponding to the load.

F07924 Drive: Torque/speed too high

Reaction: OFF1 (NONE, OFF2, OFF3)

Acknowledge: IMMEDIATELY

Cause: For p2193 = 1:
The torque deviates from the torque/speed envelope characteristic (too high).
For p2193 = 2:
The speed signal from the external encoder (refer to p3230) deviates from the speed (r2169) (too high).

Remedy: - check the connection between the motor and load.
- adapt the parameterization corresponding to the load.

F07925	Drive: Torque/speed out of tolerance
Reaction:	OFF1 (NONE, OFF2, OFF3)
Acknowledge:	IMMEDIATELY
Cause:	For p2193 = 1: The torque deviates from the torque/speed envelope characteristic. For p2193 = 2: The speed signal from the external encoder (refer to p3230) deviates from the speed (r2169).
Remedy:	- check the connection between the motor and load. - adapt the parameterization corresponding to the load.

A07927	DC braking active
Reaction:	NONE
Acknowledge:	NONE
Cause:	The motor is braked with DC current. DC braking is active. 1) A message with response DCBRK is active. The motor is braked with the braking current set in p1232 for the duration set in p1233. If the standstill threshold p1226 is undershot, then braking is prematurely canceled. 2) DC braking has been activated at binector input p1230 with the DC braking set (p1230 = 4). Braking current p1232 is injected until this binector input becomes inactive.
Remedy:	Not necessary. The alarm automatically disappears once DC braking has been executed.

A07929 (F)	Drive: No motor detected
Reaction:	NONE
Acknowledge:	NONE
Cause:	The absolute current value is so small after enabling the inverter pulses that no motor is detected. Note: In the case of vector control and an induction motor, this alarm is followed by the fault F07902. See also: p2179 (Output load identification current limit)
Remedy:	- check the motor feeder cables. - reduce the threshold value (p2179), e.g. for synchronous motors. - check the voltage boost of the U/f control (p1310). - carry out a standstill measurement to set the stator resistance (p0350).

F07936	Drive: load failure
Reaction:	OFF1 (NONE, OFF2, OFF3)
Acknowledge:	IMMEDIATELY
Cause:	The load monitoring has detected a load failure.
Remedy:	- check the sensor. - if necessary, de-activate the load monitoring (p2193). See also: p2193 (Load monitoring configuration), p3232 (Load monitoring failure detection)

F07950 (A)	Motor parameter incorrect
Reaction:	NONE
Acknowledge:	IMMEDIATELY
Cause:	The motor parameters were incorrectly entered while commissioning (e.g. p0300 = 0, no motor) Fault value (r0949, decimal interpretation): Parameter number involved. See also: p0300, p0301, p0304, p0305, p0307, p0310, p0311, p0314, p0316, p0320, p0322, p0323
Remedy:	Compare the motor data with the rating plate data and if required, correct. See also: p0300, p0301, p0304, p0305, p0307, p0310, p0311, p0314, p0316, p0320, p0322, p0323

F07967 **Drive: Pole position identification internal fault**
Reaction: OFF2 (NONE, OFF1)
Acknowledge: IMMEDIATELY
Cause: A fault has occurred during the pole position identification routine.
 Only for internal Siemens troubleshooting.
Remedy: Carry out a POWER ON.

F07968 **Drive: Lq-Ld measurement incorrect**
Reaction: OFF2
Acknowledge: IMMEDIATELY
Cause: A fault has occurred during the Lq-Ld measurement.
 Fault value (r0949, decimal interpretation):
 10: Stage 1: The ratio between the measured current and zero current is too low.
 12: Stage 1: The maximum current was exceeded.
 15: Second harmonic too low.
 16: Drive converter too small for the measuring technique.
 17: Abort due to pulse inhibit.
Remedy: For fault value = 10:
 Check whether the motor is correctly connected.
 Replace the power unit involved.
 De-activate technique (p1909).
 For fault value = 12:
 Check whether motor data have been correctly entered.
 De-activate technique (p1909).
 For fault value = 16:
 De-activate technique (p1909).
 For fault value = 17:
 Repeat technique.

F07969 Drive: Incorrect pole position identification

Reaction: OFF2

Acknowledge: IMMEDIATELY

Cause: A fault has occurred during the pole position identification routine.
Fault value (r0949, decimal interpretation):
1: Current controller limited
2: Motor shaft locked.
10: Stage 1: The ratio between the measured current and zero current is too low.
11: Stage 2: The ratio between the measured current and zero current is too low.
12: Stage 1: The maximum current was exceeded.
13: Stage 2: The maximum current was exceeded.
14: Current difference to determine the +d axis too low.
15: Second harmonic too low.
16: Drive converter too small for the measuring technique.
17: Abort due to pulse inhibit.
18: First harmonic too low.
20: Pole position identification requested with the motor shaft rotating and activated flying restart function.

Remedy: For fault value = 1:
Check whether the motor is correctly connected.
Check whether motor data have been correctly entered.
Replace the power unit involved.
For fault value = 2:
Bring the motor into a no-load condition.
For fault value = 10:
When selecting p1980 = 4: Increase the value for p0325.
When selecting p1980 = 1: Increase the value for p0329.
Check whether the motor is correctly connected.
Replace the power unit involved.
For fault value = 11:
Increase the value for p0329.
Check whether the motor is correctly connected.
Replace the power unit involved.
For fault value = 12:
When selecting p1980 = 4: Reduce the value for p0325.
When selecting p1980 = 1: Reduce the value for p0329.
Check whether motor data have been correctly entered.
For fault value = 13:
Reduce the value for p0329.
Check whether motor data have been correctly entered.
For fault value = 14:
Increase the value for p0329.
For fault value = 15:
Increase the value for p0325.
Motor not sufficiently anisotropic, change the technique (p1980 = 1 or 10).
For fault value = 16:
Change the technique (p1980).
For fault value = 17:
Repeat technique.
For fault value = 18:
Increase the value for p0329.
Saturation not sufficient, change the technique (p1980 = 10).
For fault value = 20:
Before carrying out a pole position identification routine ensure that the motor shaft is absolutely stationary (zero speed).

A07980	Drive: Rotating measurement activated
Reaction:	NONE
Acknowledge:	NONE
Cause:	The rotating measurement (automatic speed controller optimization) is activated. The rotating measurement is carried out at the next power-on command. See also: p1960 (Rotating measurement selection)
Remedy:	Not necessary. The alarm disappears automatically after the speed controller optimization has been successfully completed or for the setting p1900 = 0.
A07981	Drive: Enable signals for the rotating measurement missing
Reaction:	NONE
Acknowledge:	NONE
Cause:	The rotating measurement cannot be started due to missing enable signals.
Remedy:	- acknowledge faults that are present. - establish missing enable signals. See also: r0002 (Drive operating display), r0046 (Missing enable sig)
F07983	Drive: Rotating measurement saturation characteristic
Reaction:	OFF1 (NONE, OFF2)
Acknowledge:	IMMEDIATELY
Cause:	A fault has occurred while determining the saturation characteristic. Fault value (r0949, decimal interpretation): 1: The speed did not reach a steady-state condition. 2: The rotor flux did not reach a steady-state condition. 3: The adaptation circuit did not reach a steady-state condition. 4: The adaptation circuit was not enabled. 5: Field weakening active. 6: The speed setpoint was not able to be approached as the minimum limiting is active. 7: The speed setpoint was not able to be approached as the suppression (skip) bandwidth is active. 8: The speed setpoint was not able to be approached as the maximum limiting is active. 9: Several values of the determined saturation characteristic are not plausible. 10: Saturation characteristic could not be sensibly determined because load torque too high.
Remedy:	For fault value = 1: - the total drive moment of inertia is far higher than that of the motor (p0341, p0342). De-select rotating measurement (p1960), enter the moment of inertia p0342, re-calculate the speed controller p0340 = 4 and repeat the measurement. Re fault value = 1 ... 2: - increase the measuring speed (p1961) and repeat the measurement. Re fault value = 1 ... 4: - check the motor parameters (rating plate data). After the change: Calculate p0340 = 3. - check the moment of inertia (p0341, p0342). After the change: Calculate p0340 = 3. - carry out a motor data identification routine (p1910). - if required, reduce the dynamic factor (p1967 < 25 %). For fault value = 5: - the speed setpoint (p1961) is too high. Reduce the speed. For fault value = 6: - adapt the speed setpoint (p1961) or minimum limiting (p1080). For fault value = 7: - adapt the speed setpoint (p1961) or suppression (skip) bandwidths (p1091 ... p1094, p1101). For fault value = 8: - adapt the speed setpoint (p1961) or maximum limit (p1082, p1083 and p1086). Re fault value = 9, 10: - the measurement was carried out at an operating point where the load torque is too high. Select a more suitable operating point, either by changing the speed setpoint (p1961) or by reducing the load torque. The load torque may not be varied while making measurements. Note: The saturation characteristic identification routine can be disabled using p1959.1. See also: p1959 (Rotating measurement configuration)

F07984 Drive: Speed controller optimization, moment of inertia

Reaction: OFF1 (NONE, OFF2)

Acknowledge: IMMEDIATELY

Cause: A fault has occurred while identifying the moment of inertia.
Fault value (r0949, decimal interpretation):
1: The speed did not reach a steady-state condition.
2: The speed setpoint was not able to be approached as the minimum limiting is active.
3: The speed setpoint was not able to be approached as the suppression (skip) bandwidth is active.
4: The speed setpoint was not able to be approached as the maximum limiting is active.
5: It is not possible to increase the speed by 10% as the minimum limiting is active.
6: It is not possible to increase the speed by 10% as the suppression (skip) bandwidth is active.
7: It is not possible to increase the speed by 10% as the maximum limiting is active.
8: The torque difference after the speed setpoint step is too low in order to be able to still reliably identify the moment of inertia.
9: Too few data to be able to reliably identify the moment of inertia.
10: After the setpoint step, the speed either changed too little or in the incorrect direction.
11: The identified moment of inertia is not plausible.

Remedy: For fault value = 1:
- check the motor parameters (rating plate data). After the change: Calculate $p0340 = 3$.
- check the moment of inertia (p0341, p0342). After the change: Calculate $p0340 = 3$.
- carry out a motor data identification routine (p1910).
- if required, reduce the dynamic factor ($p1967 < 25\%$).
Re fault value = 2, 5:
- adapt the speed setpoint (p1965) or adapt the minimum limit (p1080).
Re fault value = 3, 6:
- adapt the speed setpoint (p1965) or suppression (skip) bandwidths (p1091 ... p1094, p1101).
Re fault value = 4, 7:
- adapt the speed setpoint (p1965) or maximum limit (p1082, p1083 and p1086).
For fault value = 8:
- the total drive moment of inertia is far higher than that of the motor (refer to p0341, p0342). De-select rotating measurement (p1960), enter the moment of inertia p0342, re-calculate the speed controller $p0340 = 4$ and repeat the measurement.
For fault value = 9:
- check the moment of inertia (p0341, p0342). After the change, re-calculate ($p0340 = 3$ or 4).
For fault value = 10:
- check the moment of inertia (p0341, p0342). After the change: Calculate $p0340 = 3$.
Note:
The moment of inertia identification routine can be disabled using p1959.2.
See also: p1959 (Rotating measurement configuration)

F07985	Drive: Speed controller optimization (oscillation test)
Reaction:	OFF1 (NONE, OFF2)
Acknowledge:	IMMEDIATELY
Cause:	A fault has occurred during the vibration test. Fault value (r0949, decimal interpretation): 1: The speed did not reach a steady-state condition. 2: The speed setpoint was not able to be approached as the minimum limiting is active. 3: The speed setpoint was not able to be approached as the suppression (skip) bandwidth is active. 4: The speed setpoint was not able to be approached as the maximum limiting is active. 5: Torque limits too low for a torque step. 6: No suitable speed controller setting was found.
Remedy:	For fault value = 1: - check the motor parameters (rating plate data). After the change: Calculate p0340 = 3. - check the moment of inertia (p0341, p0342). After the change: Calculate p0340 = 3. - carry out a motor data identification routine (p1910). - if required, reduce the dynamic factor (p1967 < 25 %). For fault value = 2: - adapt the speed setpoint (p1965) or adapt the minimum limit (p1080). For fault value = 3: - adapt the speed setpoint (p1965) or suppression (skip) bandwidths (p1091 ... p1094, p1101). For fault value = 4: - adapt the speed setpoint (p1965) or maximum limit (p1082, p1083 and p1086). For fault value = 5: - increase the torque limits (e.g. p1520, p1521). For fault value = 6: - reduce the dynamic factor (p1967). - disable the vibration test (p1959.4 = 0) and repeat the rotating measurement. See also: p1959 (Rotating measurement configuration)

F07986	Drive: Rotating measurement ramp-function generator
Reaction:	OFF1 (NONE, OFF2)
Acknowledge:	IMMEDIATELY
Cause:	During the rotating measurements, problems with the ramp-function generator occurred. Fault value (r0949, decimal interpretation): 1: The positive and negative directions are inhibited.
Remedy:	For fault value = 1: Enable the direction (p1110 or p1111).

F07988	Drive: Rotating measurement, no configuration selected
Reaction:	OFF2 (NONE, OFF1)
Acknowledge:	IMMEDIATELY
Cause:	When configuring the rotating measurement (p1959), no function was selected.
Remedy:	Select at least one function for automatic optimization of the speed controller (p1959). See also: p1959 (Rotating measurement configuration)

F07990	Drive: Incorrect motor data identification
Reaction:	OFF2 (NONE, OFF1)
Acknowledge:	IMMEDIATELY
Cause:	A fault has occurred during the identification routine. Fault value (r0949, decimal interpretation): 1: Current limit value reached. 2: Identified stator resistance lies outside the expected range 0.1 ... 100% of Zn. 3: Identified rotor resistance lies outside the expected range 0.1 ... 100% of Zn. 4: Identified stator reactance lies outside the expected range 50 ... 500% of Zn. 5: Identified magnetizing reactance lies outside the expected range 50 ... 500% of Zn. 6: Identified rotor time constant lies outside the expected range 10 ms ... 5 s. 7: Identified total leakage reactance lies outside the expected range 4 ... 50% of Zn. 8: Identified stator leakage reactance lies outside the expected range 2 ... 50% of Zn. 9: Identified rotor leakage reactance lies outside the expected range 2 ... 50% of Zn. 10: Motor has been incorrectly connected. 11: Motor shaft rotates. 20: Identified threshold voltage of the semiconductor devices lies outside the expected range 0 ... 10 V. 30: Current controller in voltage limiting. 40: At least one identification contains errors. The identified parameters are not saved to prevent inconsistencies.
Remedy:	For fault value = 0: - check whether the motor is correctly connected. Observe configuration (star-delta). Re fault value = 1 ... 40: - check whether motor data have been correctly entered in p0300, p0304 ... p0311. - is there an appropriate relationship between the motor power rating and that of the power unit? The ratio of the power unit to the rated motor current should not be less than 0.5 and not be greater than 4. - check configuration (star-delta). Re fault value = 4, 7: - check whether inductances are correctly entered in p0233. - check whether motor has been correctly connected (star-delta).
A07991 (N)	Drive: Motor data identification activated
Reaction:	NONE
Acknowledge:	NONE
Cause:	The motor data ident. routine is activated. The motor data identification routine is carried out at the next power-on command. If rotating measurement is selected (see p1900, p1960), it will not be possible to save the parameter assignment. Once motor data identification has been completed or de-activated, the option to save the parameter assignment will be made available again. See also: p1910 (Motor data identification selection)
Remedy:	Not necessary. The alarm automatically disappears after the motor data identification routine has been successfully completed or for the setting p1900 = 0.
A07994 (N)	Drive: motor data identification not performed
Reaction:	NONE
Acknowledge:	NONE
Cause:	Motor data identification has not yet been performed with the actual data set. The alarm is only initiated when changing the data set (see r0051) in the following cases: - vector control is parameterized in the data set that has been newly selected (p1300 >= 20). - a motor data identification run has still not been performed in the newly selected data set (see r3925).
Remedy:	- Perform motor data identification (see p1900). - Return data set. - Parameterize U/f control (p1300 < 20).
F08010 (N, A)	CU: Analog-to-digital converter
Reaction:	OFF1 (IASC/DCBRAKE, NONE, OFF2, OFF3, STOP1, STOP2)
Acknowledge:	IMMEDIATELY (POWER ON)
Cause:	The analog-to-digital converter on the Control Unit has not supplied any converted data.
Remedy:	- check the power supply. - replace Control Unit.

F08700 (A)	CAN: Communications error
Reaction:	OFF3 (NONE, OFF1, OFF2)
Acknowledge:	IMMEDIATELY
Cause:	<p>A CAN communications error has occurred.</p> <p>Fault value (r0949, decimal interpretation):</p> <p>1: The error counter for the send telegrams has exceeded the BUS OFF value 255. The bus disables the CAN controller.</p> <ul style="list-style-type: none"> - bus cable short circuit. - incorrect baud rate. - incorrect bit timing. <p>2: The master no longer interrogated the CAN node status longer than for its "life time". The "life time" is obtained from the "guard time" (p8604[0]) multiplied by the "life time factor" (p8604[1]).</p> <ul style="list-style-type: none"> - bus cable interrupted. - bus cable not connected. - incorrect baud rate. - incorrect bit timing. - master fault. <p>Note:</p> <p>The fault response can be set as required using p8641.</p> <p>See also: p8604 (CAN node guarding), p8641 (CAN Abort Connection Option Code)</p>
Remedy:	<ul style="list-style-type: none"> - check the bus cable - check the baud rate (p8622). - check the bit timing (p8623). - check the master. <p>The CAN controller must be manually restarted with p8608 = 1 after the cause of the fault has been resolved!</p> <p>See also: p8608 (CAN Clear Bus Off Error), p8622 (CAN bit rate), p8623 (CAN Bit Timing selection)</p>
F08701	CAN: NMT state change
Reaction:	OFF3
Acknowledge:	IMMEDIATELY
Cause:	<p>A CANopen NMT state transition from "operational" to "pre-operational" or after "stopped".</p> <p>Fault value (r0949, decimal interpretation):</p> <p>1: CANopen NMT state transition from "operational" to "pre-operational".</p> <p>2: CANopen NMT state transition from "operational" to "stopped".</p> <p>Note:</p> <p>In the NMT state "pre-operational", process data cannot be transferred and in the NMT state "stopped", no process data and no service data can be transferred.</p>
Remedy:	<p>Not necessary.</p> <p>Acknowledge the fault and continue operation.</p>
F08702 (A)	CAN: RPDO Timeout
Reaction:	OFF3 (NONE, OFF1, OFF2)
Acknowledge:	IMMEDIATELY
Cause:	<p>The monitoring time of the CANopen RPDO telegram has expired because the bus connection was either interrupted or the CANopen Master was switched-off.</p> <p>See also: p8699 (CAN: RPDO monitoring time)</p>
Remedy:	<ul style="list-style-type: none"> - check the bus cable - check the master. - If required, increase the monitoring time (p8699).
A08751	CAN: Telegram loss
Reaction:	NONE
Acknowledge:	NONE
Cause:	The CAN controller has lost a receive message (telegram).
Remedy:	Reduce the cycle times of the receive messages.

A08752	CAN: Error counter for error passive exceeded
Reaction:	NONE
Acknowledge:	NONE
Cause:	The error counter for the send or receive telegrams has exceeded the value 127.
Remedy:	<ul style="list-style-type: none">- check the bus cable- set a higher baud rate (p8622).- check the bit timing and if required optimize (p8623). See also: p8622 (CAN bit rate), p8623 (CAN Bit Timing selection)
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A08753	CAN: Message buffer overflow
Reaction:	NONE
Acknowledge:	NONE
Cause:	A message buffer overflow. Alarm value (r2124, interpret decimal): 1: Non-cyclic send buffer (SDO response buffer) overflow. 2: Non-cyclic receive buffer (SDO receive buffer) overflow. 3: Cyclic send buffer (PDO send buffer) overflow.
Remedy:	<ul style="list-style-type: none">- check the bus cable.- set a higher baud rate (p8622).- check the bit timing and if required optimize (p8623). Re alarm value = 2: <ul style="list-style-type: none">- reduce the cycle times of the SDO receive messages.- SDO request from master only after SDO feedback for previous SDO request. See also: p8622 (CAN bit rate), p8623 (CAN Bit Timing selection)
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A08754	CAN: Incorrect communications mode
Reaction:	NONE
Acknowledge:	NONE
Cause:	In the "operational" mode, an attempt was made to change parameters p8700 ... p8737.
Remedy:	Change to the "pre-operational" or "stopped" mode.
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A08755	CAN: Obj cannot be mapped
Reaction:	NONE
Acknowledge:	NONE
Cause:	The CANopen object is not provided for the Process Data Object (PDO) Mapping.
Remedy:	Use a CANopen object intended for the PDO mapping or enter 0. The following objects can be mapped in the Receive Process Data Object (RPDO) or Transmit Process Data Object (TPDO): <ul style="list-style-type: none">- RPDO: 6040 hex, 6060 hex, 60FF hex, 6071 hex; 5800 hex - 580F hex; 5820 hex - 5827 hex- TPDO: 6041 hex, 6061 hex, 6063 hex, 6069 hex, 606B hex, 606C hex, 6074 hex; 5810 hex - 581F hex; 5830 hex - 5837 hex Only sub-index 0 of the specified objects can be mapped. Note: As long as A08755 is present, the COB-ID cannot be set to valid.
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A08757	CAN: Set COB-ID invalid
Reaction:	NONE
Acknowledge:	NONE
Cause:	For online operation, the appropriate COB-ID must be set invalid before mapping. Example: Mapping for RPDO 1 should be changed (p8710[0]). --> set p8700[0] = C00006E0 hex (invalid COB-ID) --> set p8710[0] as required. --> p8700[0] enter a valid COB-ID
Remedy:	Set the COB-ID to invalid.

A08759	CAN: PDO COB-ID already available
Reaction:	NONE
Acknowledge:	NONE
Cause:	An existing PDO COB-ID was allocated.
Remedy:	Select another PDO COB-ID.
F30001	Power unit: Overcurrent
Reaction:	OFF2
Acknowledge:	IMMEDIATELY
Cause:	<p>The power unit has detected an overcurrent condition.</p> <ul style="list-style-type: none"> - closed-loop control is incorrectly parameterized. - motor has a short-circuit or fault to ground (frame). - U/f operation: Up ramp set too low. - U/f operation: rated current of motor much greater than that of power unit. - High discharge and post-charging current for line supply voltage interruptions. - High post-charging currents for overload when motoring and DC link voltage dip. - Short-circuit currents at power-on due to the missing line reactor. - power cables are not correctly connected. - power cables exceed the maximum permissible length. - power unit defective. - line phase interrupted. <p>Fault value (r0949, interpret bitwise binary):</p> <p>Bit 0: Phase U. Bit 1: Phase V. Bit 2: Phase W. Bit 3: Overcurrent in the DC link.</p> <p>Note: Fault value = 0 means that the phase with overcurrent is not recognized.</p>
Remedy:	<ul style="list-style-type: none"> - check the motor data - if required, carry out commissioning. - check the motor circuit configuration (star-delta) - U/f operation: Increase up ramp. - U/f operation: Check assignment of rated currents of motor and power unit. - check the line supply quality. - Reduce motor load. - Correct connection of line reactor. - check the power cable connections. - check the power cables for short-circuit or ground fault. - check the length of the power cables. - replace power unit. - check the line supply phases.
F30002	Power unit: DC link voltage, overvoltage
Reaction:	OFF2
Acknowledge:	IMMEDIATELY
Cause:	<p>The power unit has detected an overvoltage condition in the DC link.</p> <ul style="list-style-type: none"> - motor regenerates too much energy. - line supply voltage too high. - line phase interrupted. - DC-link voltage control switched off. - dynamic response of DC-link voltage controller excessive or insufficient. <p>Fault value (r0949, decimal interpretation): DC link voltage at the time of trip [0.1 V].</p>
Remedy:	<ul style="list-style-type: none"> - increase the ramp-down time (p1121). - set the rounding times (p1130, p1136). This is particularly recommended in U/f operation to relieve the DC link voltage controller with rapid ramp-down times of the ramp-function generator. - Activate the DC link voltage controller (p1240, p1280). - adapt the dynamic response of the DC-link voltage controller (p1243, p1247, p1283, p1287). - check the line supply voltage and setting in p0210. - check and correct the phase assignment at the power unit. - check the line supply phases. <p>See also: p0210 (Drive unit line supply voltage), p1240 (Vdc controller or Vdc monitoring configuration (vector control))</p>

F30003 Power unit: DC link voltage, undervoltage

Reaction: OFF2

Acknowledge: IMMEDIATELY

Cause: The power unit has detected an undervoltage condition in the DC link.
- line supply failure
- line supply voltage below the permissible value.
- line phase interrupted.

Note:

The monitoring threshold for the DC link undervoltage is the minimum of the following values:
- for a calculation, refer to p0210.

Remedy:
- check the line supply voltage
- check the line supply phases.
See also: p0210 (Drive unit line supply voltage)

F30004 Power unit: Overtemperature heat sink AC inverter

Reaction: OFF2

Acknowledge: IMMEDIATELY

Cause: The temperature of the power unit heat sink has exceeded the permissible limit value.
- insufficient cooling, fan failure.
- overload.
- ambient temperature too high.
- pulse frequency too high.

Fault value (r0949):

Temperature [1 bit = 0.01 °C].

Remedy:
- check whether the fan is running.
- check the fan elements.
- check whether the ambient temperature is in the permissible range.
- check the motor load.
- reduce the pulse frequency if this is higher than the rated pulse frequency.

Notice:

This fault can only be acknowledged after this alarm threshold for alarm A05000 has been undershot.
See also: p1800 (Pulse frequency setpoint)

F30005 Power unit: Overload I2t

Reaction: OFF2

Acknowledge: IMMEDIATELY

Cause: The power unit was overloaded (r0036 = 100 %).
- the permissible rated power unit current was exceeded for an inadmissibly long time.
- the permissible load duty cycle was not maintained.

Fault value (r0949, decimal interpretation):

I2t [100 % = 16384].

Remedy:
- reduce the continuous load.
- adapt the load duty cycle.
- check the motor and power unit rated currents.
- reduce the current limit (p0640).
- during operation with U/f characteristic: reduce the integral time of the current limiting controller (p1341).
See also: r0036 (Power unit overload I2t), r0206 (Rated power unit power), p0307 (Rated motor power)

F30011 Power unit: Line phase failure in main circuit

Reaction: OFF2 (OFF1)

Acknowledge: IMMEDIATELY

Cause: A line phase failure was detected at the power unit.
- the fuse of a phase of a main circuit has ruptured.
- the DC link voltage ripple has exceeded the permissible limit value.

Note:

The cause may also be a phase failure in the motor feeder cable.

Remedy:
- check the main circuit fuses.
- check the motor feeder cables.

F30012 Power unit: Temperature sensor heat sink wire breakage

Reaction: OFF1 (OFF2)

Acknowledge: IMMEDIATELY

Cause: The connection to a heat sink temperature sensor in the power unit is interrupted.
 Fault value (r0949, interpret hexadecimal):
 Bit 0: Module slot (electronics slot)
 Bit 1: Air intake
 Bit 2: Inverter 1
 Bit 3: Inverter 2
 Bit 4: Inverter 3
 Bit 5: Inverter 4
 Bit 6: Inverter 5
 Bit 7: Inverter 6
 Bit 8: Rectifier 1
 Bit 9: Rectifier 2

Remedy: Contact the manufacturer.

F30013 Power unit: Temperature sensor heat sink short-circuit

Reaction: OFF1 (OFF2)

Acknowledge: IMMEDIATELY

Cause: The heat sink temperature sensor in the power unit is short-circuited.
 Fault value (r0949, interpret hexadecimal):
 Bit 0: Module slot (electronics slot)
 Bit 1: Air intake
 Bit 2: Inverter 1
 Bit 3: Inverter 2
 Bit 4: Inverter 3
 Bit 5: Inverter 4
 Bit 6: Inverter 5
 Bit 7: Inverter 6
 Bit 8: Rectifier 1
 Bit 9: Rectifier 2

Remedy: Contact the manufacturer.

F30015 (N, A) Power unit: Phase failure motor cable

Reaction: OFF2 (NONE, OFF1, OFF3)

Acknowledge: IMMEDIATELY

Cause: A phase failure in the motor feeder cable was detected.
 The signal can also be output in the following cases:
 - The motor is correctly connected, but the drive has stalled in V/f control. In this case, a current of 0 A is possibly measured in one phase due to asymmetry of the currents.
 - the motor is correctly connected, however the closed-speed control is instable and therefore an oscillating torque is generated.
 Note:
 Chassis power units do not feature phase failure monitoring.

Remedy:
 - check the motor feeder cables.
 - increase the ramp-up or ramp-down time (p1120) if the drive has stalled in V/f control.
 - check the speed controller settings.

A30016 (N) Power unit: Load supply switched out

Reaction: NONE

Acknowledge: NONE

Cause: The DC link voltage is too low.
 Alarm value (r2124, interpret decimal):
 DC link voltage at the time of trip [0.1 V].

Remedy: Under certain circumstances, the AC line supply is not switched on.

F30017	Power unit: Hardware current limit has responded too often
Reaction:	OFF2
Acknowledge:	IMMEDIATELY
Cause:	<p>The hardware current limitation in the relevant phase (see A30031, A30032, A30033) has responded too often. The number of times the limit has been exceeded depends on the design and type of power unit.</p> <ul style="list-style-type: none"> - closed-loop control is incorrectly parameterized. - fault in the motor or in the power cables. - the power cables exceed the maximum permissible length. - motor load too high - power unit defective. <p>Fault value (r0949, interpret binary): Bit 0: Phase U Bit 1: Phase V Bit 2: Phase W</p>
Remedy:	<ul style="list-style-type: none"> - check the motor data. - check the motor circuit configuration (star-delta). - check the motor load. - check the power cable connections. - check the power cables for short-circuit or ground fault. - check the length of the power cables. - replace power unit.
F30021	Power unit: Ground fault
Reaction:	OFF2
Acknowledge:	IMMEDIATELY
Cause:	<p>Power unit has detected a ground fault.</p> <ul style="list-style-type: none"> - ground fault in the power cables. - winding fault or ground fault at the motor. - CT defective. - when the brake is applied, this causes the hardware DC current monitoring to respond. <p>Fault value (r0949, decimal interpretation): Absolute value, summation current [32767 = 271 % rated current].</p>
Remedy:	<ul style="list-style-type: none"> - check the power cable connections. - check the motor. - check the CT. - check the cables and contacts of the brake connection (a wire is possibly broken). <p>See also: p0287 (Ground fault monitoring thresholds)</p>
F30022	Power unit: Monitoring U_{ce}
Reaction:	OFF2
Acknowledge:	POWER ON
Cause:	<p>In the power unit, the monitoring of the collector-emitter voltage (U_{ce}) of the semiconductor has responded.</p> <p>Possible causes:</p> <ul style="list-style-type: none"> - fiber-optic cable interrupted. - power supply of the IGBT gating module missing. - short-circuit at the power unit output. - defective semiconductor in the power unit. <p>Fault value (r0949, interpret binary): Bit 0: Short-circuit in phase U Bit 1: Short circuit in phase V Bit 2: Short-circuit in phase W Bit 3: Light transmitter enable defective Bit 4: U_{ce} group fault signal interrupted See also: r0949 (Fault value)</p>
Remedy:	<ul style="list-style-type: none"> - check the fiber-optic cable and if required, replace. - check the power supply of the IGBT gating module (24 V). - check the power cable connections. - select the defective semiconductor and replace.

F30024 **Power unit: Overtemperature thermal model**

Reaction: OFF2

Acknowledge: IMMEDIATELY

Cause: The temperature difference between the heat sink and chip has exceeded the permissible limit value.

- the permissible load duty cycle was not maintained.
- insufficient cooling, fan failure.
- overload.
- ambient temperature too high.
- pulse frequency too high.

See also: r0037 (Power unit temperatures)

Remedy: - adapt the load duty cycle.

- check whether the fan is running.
- check the fan elements.
- check whether the ambient temperature is in the permissible range.
- check the motor load.
- reduce the pulse frequency if this is higher than the rated pulse frequency.
- if DC braking is active: reduce braking current (p1232).

F30025 **Power unit: Chip overtemperature**

Reaction: OFF2

Acknowledge: IMMEDIATELY

Cause: Chip temperature of the semiconductor has exceeded the permissible limit value.

- the permissible load duty cycle was not maintained.
- insufficient cooling, fan failure.
- overload.
- ambient temperature too high.
- pulse frequency too high.

Fault value (r0949):
Temperature difference between the heat sink and chip [1 Bit = 0.01 °C].

Remedy: - adapt the load duty cycle.

- check whether the fan is running.
- check the fan elements.
- check whether the ambient temperature is in the permissible range.
- check the motor load.
- reduce the pulse frequency if this is higher than the rated pulse frequency.

Notice:
This fault can only be acknowledged after this alarm threshold for alarm A05001 has been undershot.
See also: r0037 (Power unit temperatures)

F30027 Power unit: Precharging DC link time monitoring

Reaction: OFF2

Acknowledge: IMMEDIATELY

Cause: The power unit DC link was not able to be pre-charged within the expected time.

- 1) There is no line supply voltage connected.
- 2) The line contactor/line side switch has not been closed.
- 3) The line supply voltage is too low.
- 4) Line supply voltage incorrectly set (p0210).
- 5) The pre-charging resistors are overheated as there were too many pre-charging operations per time unit.
- 6) The pre-charging resistors are overheated as the DC link capacitance is too high.
- 7) The DC link has either a ground fault or a short-circuit.
- 8) Pre-charging circuit may be defective.

Fault value (r0949, interpret binary):

yyyyxxxx hex:

yyyy = power unit state

0: Fault status (wait for OFF and fault acknowledgement).

1: Restart inhibit (wait for OFF).

2: Overvoltage condition detected -> change into the fault state.

3: Undervoltage condition detected -> change into the fault state.

4: Wait for bypass contactor to open -> change into the fault state.

5: Wait for bypass contactor to open -> change into restart inhibit.

6: Commissioning.

7: Ready for pre-charging.

8: Pre-charging started, DC link voltage less than the minimum switch-on voltage.

9: Pre-charging, DC link voltage end of pre-charging still not detected.

10: Wait for the end of the de-bounce time of the main contactor after pre-charging has been completed.

11: Pre-charging completed, ready for pulse enable.

12: Reserved.

xxxx = Missing internal enable signals, power unit (inverted bit-coded, FFFF hex -> all internal enable signals available)

Bit 0: Power supply of the IGBT gating shut down.

Bit 1: Ground fault detected.

Bit 2: Peak current intervention.

Bit 3: I²t exceeded.

Bit 4: Thermal model overtemperature calculated.

Bit 5: (heat sink, gating module, power unit) overtemperature measured.

Bit 6: Reserved.

Bit 7: Overvoltage detected.

Bit 8: Power unit has completed pre-charging, ready for pulse enable.

Bit 9: Reserved.

Bit 10: Overcurrent detected.

Bit 11: Reserved.

Bit 12: Reserved.

Bit 13: Vce fault detected, transistor de-saturated due to overcurrent/short-circuit.

Bit 14: Undervoltage detected.

See also: p0210 (Drive unit line supply voltage)

Remedy: In general:

- check the line supply voltage at the input terminals.

- check the line supply voltage setting (p0210).

- wait until the pre-charging resistors have cooled down. For this purpose, preferably disconnect the infeed unit from the line supply.

Re 5):

- carefully observe the permissible pre-charging frequency (refer to the appropriate Equipment Manual).

Re 6):

- check the capacitance of the DC link and, if necessary, reduce it in accordance with the maximum permissible DC link capacitance (see relevant Equipment Manual).

Re 7):

- check the DC link for a ground fault or short circuit.

See also: p0210 (Drive unit line supply voltage)

A30031	Power unit: Hardware current limiting, phase U
Reaction:	NONE
Acknowledge:	NONE
Cause:	Hardware current limit for phase U responded. The pulsing in this phase is inhibited for one pulse period. <ul style="list-style-type: none"> - closed-loop control is incorrectly parameterized. - fault in the motor or in the power cables. - the power cables exceed the maximum permissible length. - motor load too high - power unit defective. <p>Note: Alarm A30031 is always output if, for a Power Module, the hardware current limiting of phase U, V or W responds.</p>
Remedy:	<ul style="list-style-type: none"> - check the motor data and if required, recalculate the controller parameters (p0340 = 3). As an alternative, run a motor data identification (p1910 = 1, p1960 = 1). - check the motor circuit configuration (star-delta) - check the motor load. - check the power cable connections. - check the power cables for short-circuit or ground fault. - check the length of the power cables.
A30032	Power unit: Hardware current limiting, phase V
Reaction:	NONE
Acknowledge:	NONE
Cause:	Hardware current limit for phase V responded. The pulsing in this phase is inhibited for one pulse period. <ul style="list-style-type: none"> - closed-loop control is incorrectly parameterized. - fault in the motor or in the power cables. - the power cables exceed the maximum permissible length. - motor load too high - power unit defective. <p>Note: Alarm A30031 is always output if, for a Power Module, the hardware current limiting of phase U, V or W responds.</p>
Remedy:	<p>Check the motor data and if required, recalculate the controller parameters (p0340 = 3). As an alternative, run a motor data identification (p1910 = 1, p1960 = 1).</p> <ul style="list-style-type: none"> - check the motor circuit configuration (star-delta) - check the motor load. - check the power cable connections. - check the power cables for short-circuit or ground fault. - check the length of the power cables.
A30033	Power unit: Hardware current limiting, phase W
Reaction:	NONE
Acknowledge:	NONE
Cause:	Hardware current limit for phase W responded. The pulsing in this phase is inhibited for one pulse period. <ul style="list-style-type: none"> - closed-loop control is incorrectly parameterized. - fault in the motor or in the power cables. - the power cables exceed the maximum permissible length. - motor load too high - power unit defective. <p>Note: Alarm A30031 is always output if, for a Power Module, the hardware current limiting of phase U, V or W responds.</p>
Remedy:	<ul style="list-style-type: none"> - check the motor data and if required, recalculate the controller parameters (p0340 = 3). As an alternative, run a motor data identification (p1910 = 1, p1960 = 1). - check the motor circuit configuration (star-delta) - check the motor load. - check the power cable connections. - check the power cables for short-circuit or ground fault. - check the length of the power cables.

A30034	Power unit: Internal overtemperature
Reaction:	NONE
Acknowledge:	NONE
Cause:	The alarm threshold for internal overtemperature has been reached. If the temperature inside the unit continues to increase, fault F30036 may be triggered. - ambient temperature might be too high. - insufficient cooling, fan failure. Fault value (r0949, interpret binary): Bit 0 = 1: Control electronics range. Bit 1 = 1: Power electronics range.
Remedy:	- check the ambient temperature. - check the fan for the inside of the unit.
F30035	Power unit: Air intake overtemperature
Reaction:	OFF1 (OFF2)
Acknowledge:	IMMEDIATELY
Cause:	The air intake in the power unit has exceeded the permissible temperature limit. For air-cooled power units, the temperature limit is at 55 °C. - ambient temperature too high. - insufficient cooling, fan failure. Fault value (r0949, decimal interpretation): Temperature [0.01 °C].
Remedy:	- check whether the fan is running. - check the fan elements. - check whether the ambient temperature is in the permissible range. Notice: This fault can only be acknowledged after this alarm threshold for alarm A05002 has been undershot.
F30036	Power unit: Internal overtemperature
Reaction:	OFF2
Acknowledge:	IMMEDIATELY
Cause:	For chassis power units, the following applies: The temperature inside the drive converter has exceeded the permissible temperature limit. - insufficient cooling, fan failure. - overload. - ambient temperature too high. Fault value (r0949, interpret binary): Bit 0 = 1: Overtemperature in the control electronics range. Bit 1 = 1: Overtemperature in the power electronics range.
Remedy:	- check whether the fan is running. - check the fan elements. - check whether the ambient temperature is in the permissible range. Notice: This fault can only be acknowledged once the permissible temperature limit minus 5 K has been fallen below.
F30037	Power unit: Rectifier overtemperature
Reaction:	OFF2
Acknowledge:	IMMEDIATELY
Cause:	The temperature in the rectifier of the power unit has exceeded the permissible temperature limit. - insufficient cooling, fan failure. - overload. - ambient temperature too high. - line supply phase failure. Fault value (r0949, decimal interpretation): Temperature [0.01 °C].
Remedy:	- check whether the fan is running. - check the fan elements. - check whether the ambient temperature is in the permissible range. - check the motor load. - check the line supply phases. Notice: This fault can only be acknowledged after this alarm threshold for alarm A05004 has been undershot.

A30042	Power unit: Fan operating time reached or exceeded
Reaction:	NONE
Acknowledge:	NONE
Cause:	The maximum operating time of the fan in the power unit is set in p0252. This message indicates the following: Fault value (r0949, decimal interpretation): 0: The maximum fan operating time is 500 hours. 1: The maximum fan operating time has been exceeded.
Remedy:	Replace the fan in the power unit and reset the operating hours counter to 0 (p0251 = 0).
A30049	Power unit: Internal fan faulty
Reaction:	NONE
Acknowledge:	NONE
Cause:	The internal fan has failed.
Remedy:	Check the internal fan and replace if necessary.
F30052	EEPROM data error
Reaction:	NONE
Acknowledge:	POWER ON
Cause:	EEPROM data error of the power unit module. Fault value (r0949, interpret hexadecimal): 0: The EEPROM data read in from the power unit module is inconsistent. 1: The EEPROM data is not compatible with the CU firmware.
Remedy:	For fault value = 0: Replace power unit module. For fault value = 1: Replace power unit module.
F30055	Power unit: Braking chopper overcurrent
Reaction:	OFF2
Acknowledge:	IMMEDIATELY
Cause:	An overcurrent condition has occurred in the braking chopper.
Remedy:	- check whether the braking resistor has a short circuit. - for an external braking resistor, check whether the resistor may have been dimensioned too small. Note: The braking chopper is only enabled again at pulse enable after the fault has been acknowledged.
F30059	Power unit: Internal fan faulty
Reaction:	OFF2
Acknowledge:	IMMEDIATELY
Cause:	The internal power unit fan has failed and is possibly defective.
Remedy:	Check the internal fan and replace if necessary.
F30071	No new actual values received from the Power Module
Reaction:	OFF2
Acknowledge:	IMMEDIATELY
Cause:	More than one actual value telegram from the power unit module has failed.
Remedy:	Check the interface (adjustment and locking) to the power unit module.
F30072	Setpoints can no longer be transferred to the Power Module
Reaction:	OFF2
Acknowledge:	IMMEDIATELY
Cause:	More than one setpoint telegram was not able to be transferred to the power unit module.
Remedy:	Check the interface (adjustment and locking) to the power unit module.

F30074 (A)	Communication error between the Control Unit and Power Module
Reaction:	NONE
Acknowledge:	IMMEDIATELY
Cause:	<p>Communications between the Control Unit and Power Module via the interface no longer possible. The Control Unit may have been withdrawn or is incorrectly inserted.</p> <p>Fault value (r0949, interpret hexadecimal):</p> <p>0 hex: The Control Unit was withdrawn from the Power Module during operation.</p> <p>1 hex: The Control Unit was withdrawn from the Power Module during operation, although the encoderless safe motion monitoring functions are enabled. This is not supported. After re-inserting the Control Unit in operation, communications to the Power Module no longer possible.</p> <p>20A hex: The Control Unit was inserted on a Power Module, which has another code number.</p> <p>20B hex: The Control Unit was inserted on a Power Module, which although it has the same code number, has a different serial number. The Control Unit executes an automatic warm restart to accept the new calibration data.</p>
Remedy:	<p>For fault value = 0 and 20A hex: Insert the Control Unit on an appropriate Power Module and continue operation. If required, carry out a POWER ON of the Control Unit.</p> <p>For fault value = 1 hex: Carry out a POWER ON of the Control Unit.</p>

F30080	Power unit: Current increasing too quickly
Reaction:	OFF2
Acknowledge:	IMMEDIATELY
Cause:	<p>The power unit has detected an excessive rate of rise in the overvoltage range.</p> <ul style="list-style-type: none"> - closed-loop control is incorrectly parameterized. - motor has a short-circuit or fault to ground (frame). - U/f operation: Up ramp set too low. - U/f operation: rated current of motor much greater than that of power unit. - power cables are not correctly connected. - power cables exceed the maximum permissible length. - power unit defective. <p>Fault value (r0949, interpret bitwise binary):</p> <p>Bit 0: Phase U. Bit 1: Phase V. Bit 2: Phase W.</p>
Remedy:	<ul style="list-style-type: none"> - check the motor data - if required, carry out commissioning. - check the motor circuit configuration (star-delta) - U/f operation: Increase up ramp. - U/f operation: Check assignment of rated currents of motor and power unit. - check the power cable connections. - check the power cables for short-circuit or ground fault. - check the length of the power cables. - replace power unit.

F30081	Power unit: Switching operations too frequent
Reaction:	OFF2
Acknowledge:	IMMEDIATELY
Cause:	<p>The power unit has executed too many switching operations for current limitation.</p> <ul style="list-style-type: none"> - closed-loop control is incorrectly parameterized. - motor has a short-circuit or fault to ground (frame). - U/f operation: Up ramp set too low. - U/f operation: rated current of motor much greater than that of power unit. - power cables are not correctly connected. - power cables exceed the maximum permissible length. - power unit defective. <p>Fault value (r0949, interpret bitwise binary): Bit 0: Phase U. Bit 1: Phase V. Bit 2: Phase W.</p>
Remedy:	<ul style="list-style-type: none"> - check the motor data - if required, carry out commissioning. - check the motor circuit configuration (star-delta) - U/f operation: Increase up ramp. - U/f operation: Check assignment of rated currents of motor and power unit. - check the power cable connections. - check the power cables for short-circuit or ground fault. - check the length of the power cables. - replace power unit.
F30105	PU: Actual value sensing fault
Reaction:	OFF2
Acknowledge:	IMMEDIATELY
Cause:	<p>At least one incorrect actual value channel was detected on the Power Stack Adapter (PSA). The incorrect actual value channels are displayed in the following diagnostic parameters.</p>
Remedy:	<p>Evaluate the diagnostic parameters. If the actual value channel is incorrect, check the components and if required, replace.</p>
A30502	Power unit: DC link overvoltage
Reaction:	NONE
Acknowledge:	NONE
Cause:	<p>The power unit has detected overvoltage in the DC link on a pulse inhibit.</p> <ul style="list-style-type: none"> - device connection voltage too high. - line reactor incorrectly dimensioned. <p>Fault value (r0949, decimal interpretation): DC link voltage [1 bit = 100 mV]. See also: r0070 (Actual DC link voltage)</p>
Remedy:	<ul style="list-style-type: none"> - check the device supply voltage (p0210). - check the dimensioning of the line reactor. <p>See also: p0210 (Drive unit line supply voltage)</p>
F30662	Error in internal communications
Reaction:	OFF2
Acknowledge:	POWER ON
Cause:	<p>A module-internal communication error has occurred. Fault value (r0949, interpret hexadecimal): Only for internal Siemens troubleshooting.</p>
Remedy:	<ul style="list-style-type: none"> - carry out a POWER ON (power off/on). - upgrade firmware to later version. - contact the Hotline.

F30664	Error while booting
Reaction:	OFF2
Acknowledge:	POWER ON
Cause:	An error has occurred during booting. Fault value (r0949, interpret hexadecimal): Only for internal Siemens troubleshooting.
Remedy:	- carry out a POWER ON (power off/on). - upgrade firmware to later version. - contact the Hotline.

N30800 (F)	Power unit: Group signal
Reaction:	OFF2
Acknowledge:	NONE
Cause:	The power unit has detected at least one fault.
Remedy:	Evaluate the other messages that are presently available.

F30802	Power unit: Time slice overflow
Reaction:	OFF2
Acknowledge:	IMMEDIATELY
Cause:	A time slice overflow has occurred.
Remedy:	- carry out a POWER ON (power off/on) for all components. - upgrade firmware to later version. - contact the Hotline.

A30804 (F)	Power unit: CRC
Reaction:	NONE
Acknowledge:	NONE
Cause:	CRC error actuator
Remedy:	- carry out a POWER ON (power off/on) for all components. - upgrade firmware to later version. - contact the Hotline.

F30805	Power unit: EPROM checksum error
Reaction:	OFF2
Acknowledge:	IMMEDIATELY
Cause:	Internal parameter data is corrupted. Fault value (r0949, interpret hexadecimal): 01: EEPROM access error. 02: Too many blocks in the EEPROM.
Remedy:	Replace the module.

F30809	Power unit: Switching information not valid
Reaction:	OFF2
Acknowledge:	IMMEDIATELY
Cause:	For 3P gating unit: The last switching status word in the setpoint telegram is identified by the end ID. Such an end ID was not found.
Remedy:	- carry out a POWER ON (power off/on) for all components. - upgrade firmware to later version. - contact the Hotline.

A30810 (F)	Power unit: Watchdog timer
Reaction:	NONE
Acknowledge:	NONE
Cause:	When booting it was detected that the cause of the previous reset was an SAC watchdog timer overflow.
Remedy:	- carry out a POWER ON (power off/on) for all components. - upgrade firmware to later version. - contact the Hotline.

F30850	Power unit: Internal software error
Reaction:	OFF1 (NONE, OFF2, OFF3)
Acknowledge:	POWER ON
Cause:	An internal software error has occurred in the power unit. Fault value (r0949, decimal interpretation): Only for internal Siemens troubleshooting.
Remedy:	- replace power unit. - if required, upgrade the firmware in the power unit. - contact the Hotline.
F30903	Power unit: I2C bus error occurred
Reaction:	OFF2 (IASC/DCBRAKE, NONE, OFF1, OFF3, STOP2)
Acknowledge:	IMMEDIATELY
Cause:	Communications error with an EEPROM or A/D converter. Fault value (r0949, interpret hexadecimal): 80000000 hex: - internal software error. 00000001 hex ... 0000FFFF hex: - module fault.
Remedy:	Re fault value = 80000000 hex: - upgrade firmware to later version. Re fault value = 00000001 hex ... 0000FFFF hex: - replace the module.
A30920 (F)	Temperature sensor fault
Reaction:	NONE
Acknowledge:	NONE
Cause:	When evaluating the temperature sensor, an error occurred. Alarm value (r2124, interpret decimal): 1: Wire breakage or sensor not connected (KTY: R > 2120 Ohm). 2: Measured resistance too low (PTC: R < 20 Ohm, KTY: R < 50 Ohm).
Remedy:	- make sure that the sensor is connected correctly. - replace the sensor.
A30999 (F, N)	Power unit: Unknown alarm
Reaction:	NONE
Acknowledge:	NONE
Cause:	An alarm occurred on the power unit that cannot be interpreted by the Control Unit firmware. This can occur if the firmware on this component is more recent than the firmware on the Control Unit. Alarm value (r2124, interpret decimal): Alarm number. Note: If required, the significance of this new alarm can be read about in a more recent description of the Control Unit.
Remedy:	- replace the firmware on the power unit by an older firmware version (r0128). - upgrade the firmware on the Control Unit (r0018).
F50510	FBLOCKS: Logon of the run-time group rejected
Reaction:	OFF2
Acknowledge:	IMMEDIATELY
Cause:	When the run-time groups of the free function blocks attempted to log on with the sampling time management, the logon of at least one run-time group was rejected. Too many different hardware sampling times may have been assigned to the free function blocks.
Remedy:	- Check number of available hardware sampling times (T_sample < 8 ms) (r7903).

F50511	FBLOCKS: Memory no longer available for free function blocks
Reaction:	OFF2
Acknowledge:	IMMEDIATELY
Cause:	When the free function blocks were activated, more memory was requested than was available on the Control Unit.
Remedy:	Not necessary.
A50513 (F)	FBLOCKS: Run sequence value already assigned
Reaction:	NONE
Acknowledge:	NONE
Cause:	An attempt was made to assign a run sequence value already assigned to a function block on this drive object to another additional function block on the same drive object. A run sequence value can only be precisely assigned to one function block on one drive object.
Remedy:	Set another value that is still available on this drive object for the run sequence.
A50517	FBLOCKS: Int. meas. active
Reaction:	NONE
Acknowledge:	NONE
Cause:	A Siemens internal measurement has been activated.
Remedy:	Carry out a POWER ON (power off/on) for the Control Unit involved.
F50518	FBLOCKS: Sampling time of free run-time group differs at download
Reaction:	NONE
Acknowledge:	IMMEDIATELY
Cause:	In the STARTER/SCOUT project that was downloaded, the hardware sampling time of a free run-time group ($1 \leq p20000[i] \leq 256$) was set to a value that was either too low or too high. The sampling time must be between 1 ms and the value r20003 - r20002. If the sampling time of the selected free run-time group is < 1 ms, the equivalent value of 1 ms is used. If the value $\geq r20003$, then the sampling time is set to the next higher or the same software sampling time $\geq r21003$. Fault value (r0949, decimal interpretation): Number of the p20000 index of the run-time group where the sampling time is incorrectly set. Number of the run-time group = fault value + 1 Note: For SIMOTION D410, r20003 (unlike all the other Control Units) is automatically set the same as the PROFIBUS sampling time.
Remedy:	- correctly set the sampling time of the run-time group. - if required, take all of the blocks from the run-time group. Note: Fault F50518 only detects an incorrectly parameterized run-time group. If, after correcting p20000[i] in the project, this error occurs again at download, then the run-time group involved should be identified using the fault value (r0949) and the sampling time correctly set.