



**SEW**  
**EURODRIVE**

# Compact Operating Instructions



**MOVITRAC® B**





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# 1 General information

## 1.1 Scope of this documentation

This documentation comprises the general safety notes and selected information regarding the device.

- Please note that this documentation does not replace the detailed operating instructions.
- Read the detailed operating instructions before you start working with the device.
- Observe the information, instructions and notes in the detailed operating instructions. This is essential for fault-free operation of the unit and fulfillment of any rights to claim under warranty.
- The enclosed CD or DVD contains PDF files of the additional operating instructions as well as further documentation regarding the device.
- All technical documentation from SEW-EURODRIVE is available as individual PDF files via the SEW-EURODRIVE website: [www.sew-eurodrive.de](http://www.sew-eurodrive.de)

## 1.2 Structure of the safety notes

### 1.2.1 Meaning of the signal words

The following table shows the grading and meaning of the signal words for safety notes, notes on potential risks of damage to property, and other notes.

Signal word	Meaning	Consequences if disregarded
<b>▲ DANGER</b>	Imminent danger	Severe or fatal injuries
<b>▲ WARNING</b>	Possible dangerous situation	Severe or fatal injuries
<b>▲ CAUTION</b>	Possible dangerous situation	Minor injuries
<b>NOTICE</b>	Possible damage to property	Damage to the drive system or its environment
<b>INFORMATION</b>	Useful information or tip: Simplifies the handling of the drive system.	–

### 1.2.2 Structure of the section-related safety notes

Section-related safety notes do not apply to a specific action, but to several actions pertaining to one subject. The used symbols indicate either a general or a specific hazard.

This is the formal structure of a section-related safety note:



#### **▲ SIGNAL WORD**

Type and source of danger.

Possible consequence(s) if disregarded.

- Measure(s) to prevent the danger.



### 1.2.3 Structure of the embedded safety notes

Embedded safety notes are directly integrated in the instructions just before the description of the dangerous action.

This is the formal structure of an embedded safety note:

- **▲ SIGNAL WORD** Nature and source of hazard.  
Possible consequence(s) if disregarded.
  - Measure(s) to prevent the danger.



## 2 Safety notes

The following basic safety notes must be read carefully to prevent injury to persons and damage to property. The operator must ensure that the basic safety notes are read and adhered to. Make sure that persons responsible for the plant and its operation, as well as persons who work independently on the unit, have read through the operating instructions carefully and understood them. If you are unclear about any of the information in this documentation, or if you require further information, please contact SEW-EURODRIVE.

### 2.1 Preliminary information

The following safety notes predominantly refer to the use of frequency inverters. Additionally, when using drives with motors or gearmotors, observe the corresponding safety notes in the respective operating instructions.

Please also observe the supplementary safety notes in the individual sections of this publication.

### 2.2 General information

During operation, frequency inverters can have live, bare parts according to their degree of protection.

Severe or fatal injuries.

- All work related to transportation, storage, setup/mounting, connection, startup, maintenance and repair may only be carried out by qualified personnel, in strict observance of:
  - The relevant detailed operating instructions
  - The warning and safety signs on the motor/gearmotor
  - All other project planning documents, operating instructions and wiring diagrams related to the drive
  - The specific regulations and requirements for the system
  - The national/regional regulations governing safety and the prevention of accidents
- Never install damaged products.
- Submit a complaint to the shipping company immediately in the event of damage.

Removing covers without authorization, improper use as well as incorrect installation or operation may result in severe injuries to persons or damage to property.

This document provides further information.



## **2.3 Target group**

Any mechanical work may only be performed by adequately qualified personnel. Qualified personnel in this context are persons who are familiar with the setup, mechanical installation, troubleshooting and maintenance for this product. Further, they are qualified as follows:

- Training in mechanical engineering, e.g. as a mechanic or mechatronics technician (final examinations must have been passed).
- They are familiar with these operating instructions.

Any electronic work may only be performed by adequately qualified electricians. Qualified electricians in this context are persons who are familiar with the electronic installation, startup, troubleshooting and maintenance for this product. Further, they are qualified as follows:

- Training in electrical engineering, e.g. as an electrician or mechatronics technician (final examinations must have been passed).
- They are familiar with these operating instructions.

All work in further areas of transportation, storage, operation and waste disposal must only be carried out by persons who are trained appropriately.

## **2.4 Designated use**

Frequency inverters are components for controlling asynchronous AC motors. Frequency inverters are components intended for installation in electrical systems or machines. Never connect capacitive loads. Operation with capacitive loads results in over-voltages and may destroy the unit.

The following standards apply, if the frequency inverters are marketed in the EU/EFTA:

- In case of installation in machines, startup of the inverters (meaning the start of proper use) is prohibited until it is determined that the machine meets the requirements stipulated in Directive 2006/42/EC (machine directive); observe EN 60204.
- Startup (i.e. the start of designated use) is only permitted under observance of the EMC (2004/108/EC) directive.
- The frequency inverters comply with the requirements of the Low Voltage Directive 2006/95/EC. The harmonized standards of the EN 61800-5-1/DIN VDE T105 series in connection with EN 60439-1/VDE 0660 part 500 and EN 60146/VDE 0558 are applied to these frequency inverters.

Observe the technical data and the connection requirements specified on the nameplate and the operating instructions.



### 2.4.1 Safety functions

Frequency inverters from SEW-EURODRIVE must not perform any safety functions unless the inverters are subordinate to other safety systems.

Use higher-level safety systems to ensure protection of equipment and personnel.

When using the "Safe stop" function, you must observe the following publications:

- MOVITRAC® B / functional safety

This documentation is available via "Documentation \ Software \ CAD" on the **SEW-EURODRIVE website**.

### 2.4.2 Document content

This publication contains conditions and amendments related to MOVITRAC® B in safety-oriented applications.

The system comprises a frequency inverter with asynchronous motor and safety-tested external disconnecting device.

## 2.5 Applicable documentation

This document supplements the MOVITRAC® B operating instructions and limits the application notes according to the following information.

**It can only be used in conjunction with the following publications:**

- MOVITRAC® B compact operating instructions
- MOVITRAC® B communication manual
- The respective manual of the used option card

## 2.6 Transport/storage

Inspect the shipment for any damage that may have occurred in transit as soon as you receive the delivery. Inform the shipping company immediately about any damage. It may be necessary to preclude startup. Observe the climate conditions according to chapter "General technical data".





## **2.7 Installation**

The units must be installed and cooled according to the regulations and specifications in this documentation.

Protect the frequency inverters from excessive strain. Do not twist any components and do not modify the insulation spaces. Do not touch any electronic components or contacts.

Frequency inverters contain components that can easily be damaged by electrostatic energy and improper handling. Electric components must not be mechanically damaged or destroyed.

The following applications are prohibited unless explicitly permitted:

- Use in potentially explosive atmospheres.
- Use in areas exposed to harmful oils, acids, gases, vapors, dust, radiation, etc. (frequency inverter may only be operated in climate class 3K3 to EN 60721-3-3)
- Use in non-stationary applications that are subject to mechanical vibration and shock loads in excess of the requirements in EN 61800-5-1.

## **2.8 Electrical connection**

Observe the applicable national accident prevention guidelines when working on live frequency inverters (e.g. BGV A3 for Germany).

During installation, observe the specifications regarding cable cross sections, fusing and protective conductor connection. This publication contains additional information.

In this documentation, you will find notes on EMC-compliant installation, such as shielding, grounding, arrangement of filters and routing of lines. The manufacturer of the system or machine is responsible for maintaining the limits established by EMC legislation.

Protective measures and protection devices must comply with the regulations in force (e.g. EN 60204 or EN 61800-5-1).

Ground the unit.

## **2.9 Safe disconnection**

The unit meets all requirements for reliable isolation of power and electronics connections in accordance with EN 61800-5-1. All connected circuits must also satisfy the requirements for safe disconnection to ensure reliable isolation.



## **2.10 Operation**

Systems with integrated frequency inverters must be equipped with additional monitoring and protection devices, as applicable, according to the relevant safety guidelines and regulations, such as legislation governing technical equipment, accident prevention regulations, etc.

Do not touch live components or power connections until 10 minutes after disconnecting the frequency inverters from the supply voltage because there may still be some charged capacitors. Observe the corresponding labels on the frequency inverter.

Keep all covers and housings closed during operation.

The fact that the status LED and other display elements are no longer illuminated does not indicate that the unit has been disconnected from the supply system and no longer carries any voltage.

Mechanical blocking or internal safety functions of the unit can cause a motor standstill. Eliminating the cause of the problem or performing a reset may result in the drive re-starting automatically. If this is not permitted for the driven machine for safety reasons, disconnect the unit from the supply system before correcting the fault.

## **2.11 Unit temperature**

MOVITRAC® B frequency inverters are usually operated with braking resistors. The braking resistors are usually installed on top of the control cabinet.

The braking resistors can reach a surface temperature of significantly more than 70 °C.

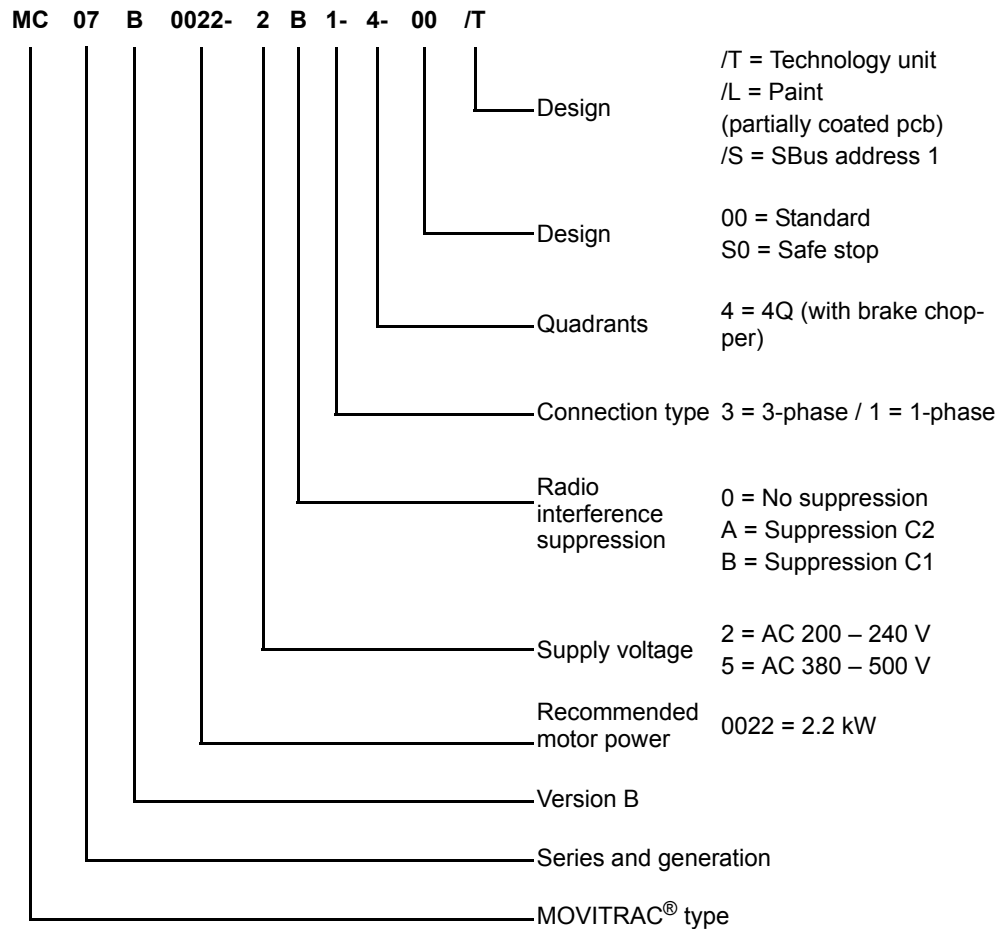
Never touch the braking resistors during operation or in the cool down phase once the unit has been switched off.



### 3 Unit designation / nameplate

#### 3.1 Type designation

The following diagram shows a type designation:



#### 3.2 Nameplate

The following figure shows a nameplate:



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Input	U	Nominal line voltage	T	Ambient temperature
	I	Nominal line current, 100% operation	P <sub>motor</sub>	Recommended motor power 100% operation
	f	Nominal line frequency		
Output	U	Output voltage 100% operation		
	I	Nominal output current 100% operation		
	f	Output frequency		

The unit status is indicated above the lower barcode. It documents the unit's hardware and software states.



## 4 Installation



### DANGER

The surface temperatures of the heat sinks can exceed 70 °C.

Danger of burns.

- Do not touch the heat sink.



### DANGER

Dangerous voltages present at cables and terminals.

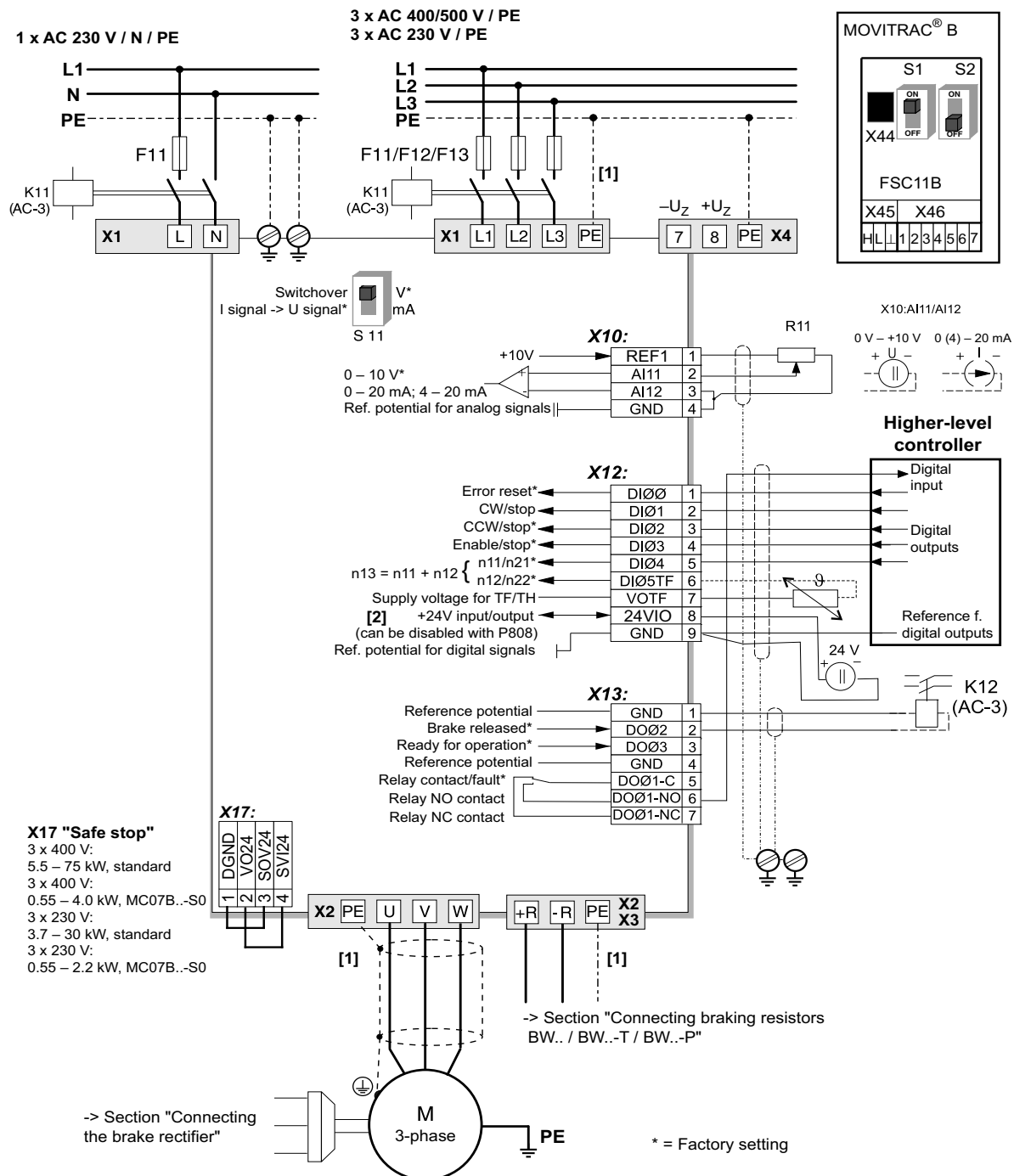
Severe or fatal injuries from electric shock.

To prevent electric shocks due to stored charges:

- Disconnect the inverter from the supply system and wait 10 minutes before starting to work on it.
- Use suitable measuring instruments to make sure that no voltage is present at cables and terminals.



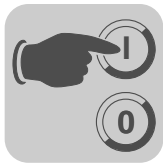
## 4.1 Wiring diagram



[1] In sizes 1, 2S, and 2, there is no PE connection next to the power supply connection terminals and motor connection terminals [X1]/[X2]. Use the PE terminal next to the DC link connection [X4] (only size 1 - 5). For size 0, the plate is the PE connection.

[2] The MC07B...S0 unit type must always be supplied with external voltage.

X4 is only available in sizes 1 - 5. From size 3 onwards, there are two additional PE terminals.



## 5 Startup

### 5.1 Startup with factory setting – brief description

You can directly connect the MOVITRAC® B frequency motor to a motor with the same power rating. For example: A 1.5 kW (2.0 HP) motor can be connected directly to a MC07B0015.

#### 5.1.1 Procedure

1. Connect the motor to MOVITRAC® B (terminal X2).
2. You have the option of connecting a braking resistor (terminal X2/X3).
3. The following signal terminals must be controlled with your control system:
  - Enable DIØ3
  - As required: CW/STOP DIØ1 or CCW/STOP DIØ2
  - Setpoint:
    - Analog input (X10) and/or
    - DIØ4 = n11 = 150 rpm and/or
    - DIØ5 = n12 = 750 rpm and/or
    - DIØ4 + DIØ5 = n13 = 1500 rpm
  - For brakemotors:
    - DOØ2 = brake control via brake rectifiers
4. You have the option of connecting the following signal terminals:
  - DIØØ = error reset
  - DOØ1 = /malfunction (designed as a relay contact)
  - DOØ3 = ready
5. Check the controller for the required functionality.
6. Connect the frequency inverter to the mains (X1).

#### 5.1.2 Notes

Signal terminal functions and setpoint settings can be modified using the FBG11B keypad or a PC. A PC connection requires the FSC11B front option or one of the following interface adapters: UWS21B / UWS11A / USB11A.

### 5.2 Manual operation with FBG11B setpoint adjuster

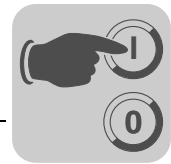
**FBG11B setpoint adjuster of the keypad** (local manual mode): LED  flashes.

The only relevant parameters in "FBG setpoint adjuster" operating mode are:

- *P122 Direction of rotation FBG manual operation*
- RUN key and STOP/RESET key
- Setpoint adjuster (potentiometer)

When the FBG setpoint adjuster is activated, the symbol flashes.

You limit the smallest speed with *P301 Minimum speed* and the largest speed with the  $n_{\max}$  symbol.



After an error, a reset can be performed using the STOP/RESET button via the terminal or the interface. After a reset, the "manual setpoint adjuster" operating mode will be active again. The drive remains stopped.

The `stop` display flashes to indicate that you have to re-enable the drive via the RUN key.

The parameter *P760 Locking RUN/STOP keys* does not have any effect in "manual setpoint adjuster" operating mode.

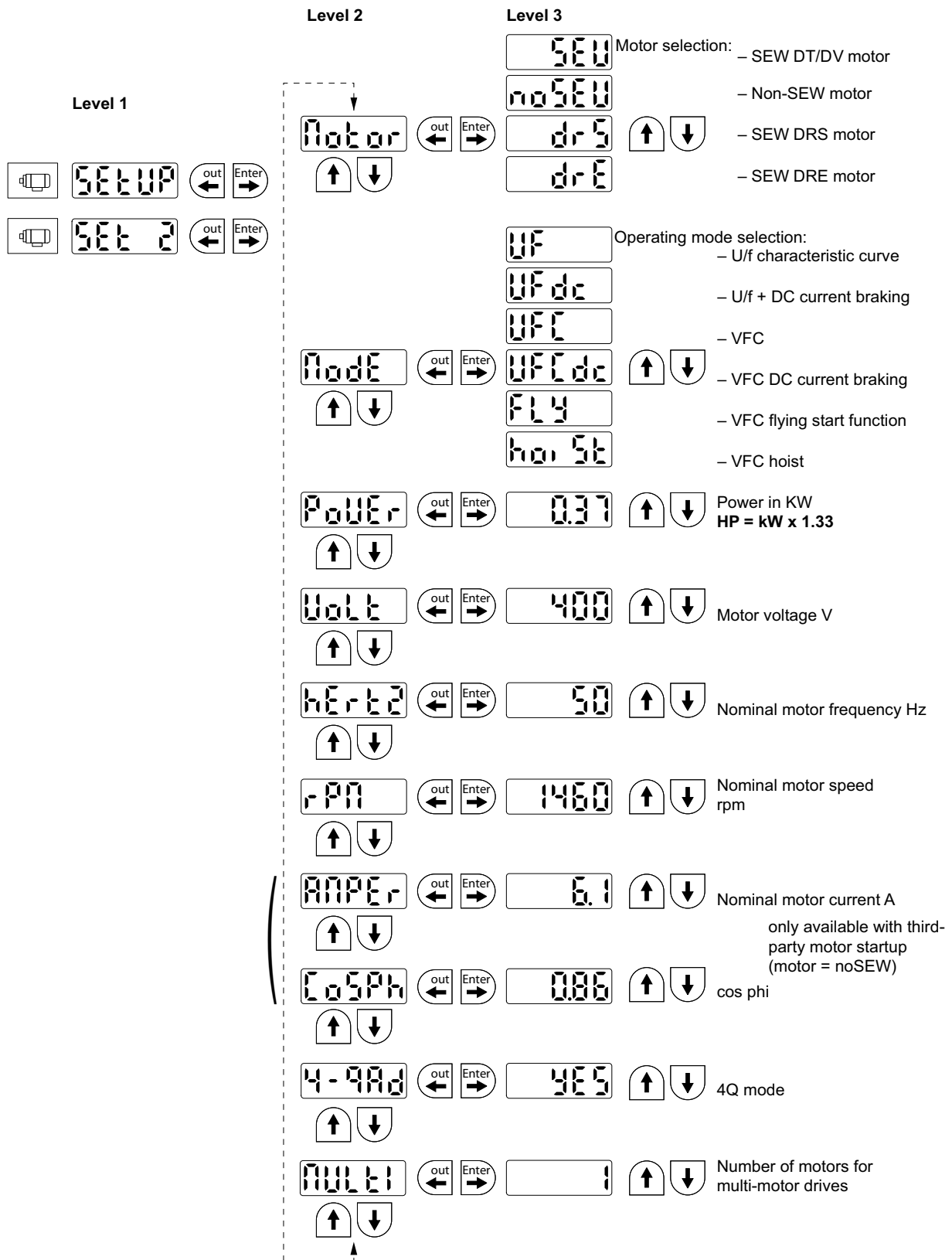
Removing the FBG11B keypad will trigger a stop response.



## Startup

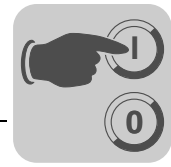
### Startup using the FBG11B keypad

#### 5.3 Startup using the FBG11B keypad



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### 5.3.1 Required data

The following data is required to ensure startup is successful:

- Motor type (SEW or non-SEW motor)
- Motor data
  - Nominal voltage and nominal frequency
  - Additionally for non-SEW motors: Nominal current, nominal power, power factor  $\cos\phi$ , and nominal speed.
- Nominal line voltage

### 5.3.2 Activating startup

Prerequisites:

- Drive "no enable": Stop

If a smaller or a larger motor is connected (maximum difference one size), then you have to choose the value closest to the rated motor power.

The startup procedure is not complete until you have returned to the main menu level by pressing the OUT key.



#### INFORMATION

The SEW motor startup is designed for 4-pole motors. It may be useful to start up 2-pole or 6-pole SEW motors as non-SEW motors.

### 5.3.3 Operating mode V/f

The default setting for the operating mode is V/f. Use this operating mode if you have no particular speed quality requirements and for applications that require a maximum output frequency > 150 Hz.

### 5.3.4 Operating mode VFC

Start up the inverter in VFC or VFC & DC brake operating mode for the following requirements:

- High torque
- Continuous duty at low frequencies
- Accurate slip compensation
- More dynamic behavior

For this purpose, you will have to choose the VFC or VFC & DC brake operating modes from *P01* at startup.



#### 5.3.5 Multi-motor drive startup

Multi-motor drives are mechanically coupled to each other (e.g. chain drive with multiple motors).

Observe the notes in the "MOVIDRIVE® Multi-Motor Drives" manual.

#### 5.3.6 Group drive startup

Group drives are mechanically decoupled from each other (e.g. different conveyor belts). In this operating mode, the inverter operates without slip compensation and with a constant V/f ratio.

Observe the notes in the "MOVIDRIVE® Multi-Motor Drives" manual.

#### 5.3.7 Startup with large load mass moment of inertia, such as with pumps and fans

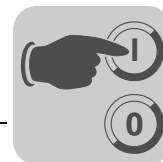
The slip compensation is designed for a load mass moment of inertia to motor moment of inertia ratio smaller than 10. If the ratio is larger and the drive vibrates, then slip compensation must be reduced and even be set to 0 if necessary.

### 5.4 Overview of parameters

The following table lists all parameters together with their factory settings (underlined). Numerical values are displayed with the complete setting range.

For a detailed parameter description, refer to the system manual or go to [www.sew-eurodrive.com](http://www.sew-eurodrive.com).

Parameter group 0.. Display value	
P00x parameter group 00. Process values	
P000 speed (signed)	
P001 user display for DBG11B	
P002 frequency (signed)	
P004 output current (absolute value)	
P005 active current (signed)	
P008 DC link voltage	
P009 output current	
P01x parameter group 01. Status displays	
P010 inverter status	
P011 operating state	
P012 fault status	
P013 current parameter set	
P014 heat sink temperature	
P015 effective power	
P02x parameter group 02. Analog setpoints	
P020 analog input AI1	
P021 analog input AI2 (optional)	
P03x parameter group 03. Digital inputs	
P030 digital input DI00	<u>Fault reset</u>
P031 digital input DI01	
P032 digital input DI02	<u>CCW/stop</u>
P033 digital input DI03	<u>Enable</u>
P034 digital input DI04	<u>n11/n21</u>



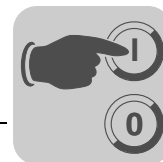
P035 digital input DI05	<u>n12/n22</u>
P039 digital inputs DI00 – DI05	
P04x parameter group 04. Digital inputs of option	
P040 digital input DI10	<u>No function</u>
P041 digital input DI11	<u>No function</u>
P042 digital input DI12	<u>No function</u>
P043 digital input DI13	<u>No function</u>
P044 digital input DI14	<u>No function</u>
P045 digital input DI15	<u>No function</u>
P046 digital input DI16	<u>No function</u>
P048 digital inputs DI10 – DI16	
P05x parameter group 05. Digital outputs	
P051 digital output DO01	<u>/FAULT</u>
P052 digital output DO02	<u>BRAKE RELEASED</u>
P053 digital output DO03	<u>READY FOR OPERATION</u>
P059 digital outputs DO01 – DO03	
P07x parameter group 07. Unit data	
P070 unit type	
P071 nominal output current	
P072 front module	
P073 firmware front module	
P076 basic unit firmware	
P077 firmware DBG	
P08x parameter group 08. Fault memory	
P080 – P084 faults t-0 – t-4	
P09x parameter group 09. Bus diagnostics	
P090 PD configuration	
P091 fieldbus type	
P092 fieldbus baud rate	
P093 fieldbus address	
P094 PO1 setpoint	
P095 PO2 setpoint	
P096 PO3 setpoint	
P097 PI1 actual value	
P098 PI2 actual value	
P099 PI3 actual value	
<b>P1xx parameter group 1.. Setpoints/ramp generators</b>	
P10x parameter group 10. Setpoint selection / frequency input	
P100 setpoint source	<u>1 / unipolar / fixed setpoint</u>
P101 control signal source	<u>0 / terminals</u>
P102 frequency scaling $f_{FI1max}$	<u>0.1 – 10 – 120.00 kHz</u>
P103 FI1 reference	<u>0 / <math>n_{max}</math></u>
P104 setpoint reference speed and analog inputs	<u>0 – 3000 – 6000 1/min</u>
P105 AI1 wire breakage detection	<u>7 / Rapid stop / Warning</u>
P106 FI1 characteristic x1	<u>0 – 100%</u>
P107 FI1 characteristic y1	<u>-100 – 0 – +100%</u>
P108 FI1 characteristic x2	<u>0 – 100%</u>
P109 FI1 characteristic y2	<u>-100 – 0 – +100%</u>



## Startup

### Overview of parameters

P11x parameter group 11. Analog input 1 (0 – 10 V)	
P112 AI1 Operating mode	<u>1</u> / 10V. reference maximum speed
P116 AI1 characteristic x1	<u>0</u> – 100%
P117 AI1 characteristic y1	–100 – <u>0</u> – +100%
P118 AI1 characteristic x2	0 – <u>100</u> %
P119 AI1 characteristic y2	–100 – 0 – <u>+100</u> %
P12x parameter group 12. Analog input AI2 / FBG setpoint adjuster (option)	
P120 AI2 Operating mode	<u>0</u> / no function
P121 addition FBG setpoint adjuster	<u>0</u> / off
P122 direction of rotation FBG manual operation	<u>0</u> / unipolar CW
P126 AI2 characteristic x1	<u>–100</u> – 0 – +100 % (–10 – <u>0</u> – +10 V)
P127 AI2 characteristic y1	<u>–100</u> – 0 – +100% (–n <sub>max</sub> – <u>0</u> – +n <sub>max</sub> / <u>0</u> – I <sub>max</sub> )
P128 AI2 characteristic x2	–100 – 0 – <u>+100</u> % (–10 – 0 – <u>+10</u> V)
P127 AI2 characteristic y1	–100 – 0 – <u>+100</u> % (–n <sub>max</sub> – 0 – <u>+n<sub>max</sub></u> / 0 – I <sub>max</sub> )
P13x / 14x parameter group 13. / 14. Speed ramps 1 / 2	
P130 / P140 ramp t11 / t21 up	0 – <u>2</u> – 2000 s
P131 / P141 ramp t11 / t21 down	0 – <u>2</u> – 2000 s
P134 / P144 ramp t12 / t22 up = down	0 – <u>10</u> – 2000 s
P135 / P145 S pattern t12 / t22	<u>0</u> / 1 / 2 / 3
P136 / P146 stop ramp t13 / t23 up = down	0 – <u>2</u> – 20 s
P139 / P149 ramp monitoring 1 / 2	<u>Yes</u> / nein
P15x parameter group 15. Motor potentiometer function	
P150 ramp t3 up = down	0.2 – <u>20</u> – 50 s
P152 save last setpoint	<u>Off</u>
P16x / P17x parameter group 16. / 17. Fixed setpoints 1 / 2	
P160 / P170 internal setpoint n11/n21	–5000 – <u>150</u> – 5000 1/min
P161 / P171 internal setpoint n12 / n22	–5000 – <u>750</u> – 5000 1/min
P162 / P172 internal setpoint n13/n23	–5000 – <u>1500</u> – 5000 1/min
P163 / P173 n11 / n21 PI controller	0 – <u>3</u> – 100%
P164 / P174 n12 / n22 PI controller	0 – <u>15</u> – 100%.
P165 / P175 n13 / n23 PI controller	0 – <u>30</u> – 100%
<b>P2xx parameter group 2.. Controller parameters</b>	
P25x parameter group 25. PI controller	
P250 PI controller	<u>0</u> / off
P251 P-gain	0 – <u>1</u> – 64
P252 I-component	0 – <u>1</u> – 2000 s
<b>P3xx parameter group 3.. Motor parameters</b>	
P30x / 31x parameter group 30. / 31. Limits 1 / 2	
P300/P310 start/stop speed 1/2	0 – 150 1/min
P301 / P311 minimum speed 1 / 2	0 – <u>15</u> – 5500 1/min
P302 / P312 maximum speed 1 / 2	0 – <u>1500</u> – 5500 1/min
P303 / P313 current limit 1 / 2	0 – <u>150</u> % I <sub>N</sub>
P32x / P33x parameter group 32. / 33. Motor adjustment 1 / 2	
P320 / P330 automatic adjustment 1/2	<u>On</u>
P321 / P331 boost 1 / 2	<u>0</u> – 100%
P322/P332 IxR adjustment 1/2	0 – 100%



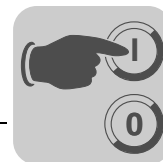
P323/P333 premagnetization time 1/2	0 – 2 s
P324/P334 slip compensation 1/2	0 – 500 1/min
P34x parameter group 34. Motor protection	
P340 / P342 motor protection 1 / 2	<u>OFF</u> / ON ASYNCHRONOUS
P341/P343 type of cooling 1/2	<u>FAN COOLED</u>
P345 / P346 IN-UL monitoring	0.1 – 500 A
<b>P4xx parameter group 4.. Reference messages</b>	
P40x parameter group 40. Speed reference signal	
P400 speed reference value	0 – <u>750</u> – 5000 1/min
P401 hysteresis	0 – <u>100</u> – 500 1/min
P402 deceleration time	0 – <u>1</u> – 9 s
P403 signal = "1"	<u>0</u> / $n < n_{ref}$
P43x parameter group 43. Current reference signal	
P430 current reference value	0 – <u>100</u> – 150% $I_N$
P431 hysteresis	0 – <u>5</u> – 30% $I_N$
P432 delay time	0 – <u>1</u> – 9 s
P433 signal = "1"	<u>0</u> / $I < I_{ref}$
P44x parameter group 44. I <sub>max</sub> signal	
P440 hysteresis	0 – <u>5</u> – 50% $I_N$
P441 delay time	0 – <u>1</u> – 9 s
P442 signal = "1"	<u>0</u> / $I = I_{max}$
P45x parameter group 45. PI controller reference signal	
P450 PI actual value reference	<u>0.0</u> – 100.0%
P451 signal = "1"	<u>1</u> / PI actual value > PI ref
<b>P5xx parameter group 5.. Monitoring functions</b>	
P50x parameter group 50. Speed monitoring 1 / 2	
P500 / P502 speed monitoring 1 / 2	<u>Off</u> (up to firmware status x.10) <u>On / motor / regenerative</u>
P501 / P503 deceleration time 1 / 2	0 – <u>1</u> – 10 s
P54x parameter group 54. Gear unit/motor monitoring	
P540 drive vibration response/warning	<u>Display error</u>
P541 drive vibration response/fault	<u>Rapid stop/warning</u>
P542 response to oil aging/warning	<u>Display error</u>
P543 response to oil aging/fault	<u>Display error</u>
P544 oil aging/overtemperature	<u>Display error</u>
P545 oil aging/ready	<u>Display error</u>
P549 response to brake wear	<u>Display error</u>
P56x parameter group 56. Ex-e motor current limitation	
P560 Ex-e motor current limitation	On / <u>off</u>
P561 frequency A	0 – <u>5</u> – 60 Hz
P562 Current limit A	0 – <u>50</u> – 150%
P563 frequency B	0 – <u>10</u> – 104 Hz
P564 current limit B	0 – <u>80</u> – 200%
P565 frequency C	0 – <u>25</u> – 104 Hz
566 current limit C	0 – <u>100</u> – 200%
P567 frequency D	0 – <u>50</u> – 104 Hz
P568 current limit D	0 – <u>100</u> – 200%
P57x parameter group 57. Motor protection	
P570 frequency E	0 – <u>87</u> – 104 Hz



## Startup

### Overview of parameters

P571 current limit E	0 – <u>100</u> – 200%
<b>P6xx parameter group 6.. Terminal assignment</b>	
P60x parameter group 60. Digital inputs	
P601 digital input DI02	<u>CCW/stop</u>
P602 digital input DI03	Enable
P603 digital input DI04	n11/n21
P604 digital input DI05	<u>n12/n22</u>
P608 digital input DI050	<u>Fault reset</u>
P61x parameter group 61. Digital inputs of option	
P610 digital input DI10	<u>No function</u>
P611 digital input DI11	<u>No function</u>
P612 digital input DI12	<u>No function</u>
P613 digital input DI13	<u>No function</u>
P614 digital input DI14	<u>No function</u>
P615 digital input DI15	<u>No function</u>
P616 digital input DI16	<u>No function</u>
P62x parameter group 62. Digital outputs of basic unit	
P620 digital output DO01	<u>/FAULT</u>
P621 digital output DO02	<u>BRAKE RELEASED</u>
P622 digital output DO03	<u>READY</u>
P63x parameter group 63. Digital outputs DO	
P630 virtual digital outputs	
P64x parameter group 64. Analog outputs AO1 (optional)	
P640 AO1 analog output	<u>0 / no function</u>
P641 AO1 reference	<u>0 / 3000 rpm, 100 Hz, 150 %</u>
P642 AO1 operating mode	<u>0 / no function</u>
P646 AO1 characteristic x1	-100 – <u>0</u> – 100%
P647 AO1 characteristic y1	<u>-100</u> – +100%
P648 AO1 characteristic x2	-100 – 0 – <u>+100%</u>
P649 AO1 characteristic y2	<u>-100</u> – 100%
<b>P7xx parameter group 7.. Control functions</b>	
P70x parameter group 70. Operating mode 1 / 2	
P700/P701 operating mode 1/2	<u>21 = V/f characteristic</u>
P71x parameter group 71. Standstill current 1 / 2	
P710/P711 standstill current 1/2	<u>0</u> – 50 % I <sub>Mot</sub>
P72x parameter group 72. Setpoint stop function 1 / 2	
P720/P723 setpoint stop function 1 / 2	<u>Off</u>
P721/P724 stop setpoint 1 / 2	0 – <u>30</u> – 500 1/min
P722/P725 start offset 1 / 2	0 – <u>30</u> – 500 1/min
P73x parameter group 73. Brake function 1 / 2	
P731/P734 brake release time 1 / 2	<u>0</u> – 2 s
P732/P735 brake application time 1 / 2	0 – 2 s
P74x parameter group 74. Speed skip function	
P740/P742 skip center 1/2	0 – <u>1500</u> – 5000 1/min
P741/P743 skip band width 1 / 2	<u>0</u> – 300 1/min
P75x parameter group 75. Master-slave function	
P750 slave setpoint	<u>0: MASTER-SLAVE OFF</u>
P751 scaling of slave setpoint	-10 – <u>0</u> – 1 – 10



P76x parameter group 76. Manual operation	
P760 lockout RUN/STOP keys	<u>Off</u>
P77x parameter group 77. Energy saving function	
P770 energy saving function	<u>Off</u>
<b>P8xx parameter group 8.. Unit functions</b>	
P80x parameter group 80. Setup	
P800 short menu (FBG11B only)	Short
P801 language DBG60B	
P802 factory setting	<u>No</u>
P803 parameter lock	<u>Off</u>
P804 reset statistics data	No action
P805 nominal line voltage	50 – 500 V
P806 copy DBG to MOVITRAC® B	Yes/ <u>no</u>
P807 copy MOVITRAC B to DBG	Yes/ <u>no</u>
P808 24VIO auxiliary voltage output	<u>1 / On</u> : 24 V switched on
P809 IPOS activation	
P81x parameter group 81. Serial communication	
P810 RS485 address	<u>0</u> – 99
P811 RS485 group address	<u>100</u> – 199
P812 RS485 timeout interval	<u>0</u> – 650 s
P819 fieldbus timeout interval	
P82x parameter group 82. Brake operation 1 / 2	
P820/P821 4-quadrant operation 1 / 2	On
P83x parameter group 83. Fault responses	
P830 response terminal "external error"	<u>4 / rapid stop / malfunction (stop with locking)</u>
P833 response to RS485 timeout	<u>7 / rapid stop / warning</u>
P836 response to SBus timeout	<u>7 / rapid stop / warning</u>
P84x parameter group 84. Reset behavior	
P840 manual reset	<u>No</u>
P841 auto reset	Off
P842 restart time	1 – <u>3</u> – 30 s
P85x parameter group 85. Scaling actual speed value	
P850 scaling factor numerator	<u>1</u> – 65535
P851 scaling factor denominator	<u>1</u> – 65535
P852 user-defined unit	<u>1/min</u>
P853 scaled speed FBG	
P86x parameter group 86. Modulation 1 / 2	
P860/P861 PWM frequency 1 / 2	<u>4 kHz</u>
P862/P863 PWM fix 1 / 2	Off
P87x parameter group 87. Process data parameter setting	
P870 setpoint description PO1	<u>Control word 1</u>
P871 setpoint description PO2	<u>Speed</u>
P872 setpoint description PO3	<u>No function</u>
P873 actual value description PI1	<u>STATUS WORD 1</u>
P874 actual value description PI2	<u>SPEED</u>
P875 actual value description PI3	<u>OUTPUT CURRENT</u>
P876 PO data enable	<u>Yes</u>
P88x parameter group 88. Serial communication SBus	



## Startup

### Overview of parameters

P880 SBus protocol	<u>0</u> / <u>MoviLink</u>
P881 SBus address	<u>0</u> – 63
P882 SBus group address	<u>0</u> – 63
P883 SBus timeout delay	<u>0</u> – 650 s
P884 SBus baud rate	<u>500</u> / <u>500</u> kBd
P886 CANopen address	1 – <u>2</u> – 127
<b>P9xx parameter group 9.. IPOS parameters</b>	
P938 speed for task 1	<u>0</u> – 9
P939 speed for task 2	<u>0</u> – 9





## **6 Operation**

### **6.1 Return codes (r19 – r38)**

Return codes when entering / editing a unit parameter in the FBG11B:

No.	Designation	Meaning
18	Only read access	Parameter cannot be changed
19	Parameter lock activated	Parameters cannot be changed
20	Factory setting in progress	Parameters cannot be changed
23	Option card missing	The option card required for the function is missing.
27	Option card missing	The option card required for the function is missing.
28	Controller inhibit required	Controller inhibit required
29	Invalid value for parameter.	<ul style="list-style-type: none"> <li>Invalid value for parameter.</li> <li>FGB manual operation selection invalid as PC is in active manual operation.</li> </ul>
32	Enabled	You cannot perform this function in ENABLED status
34	Error in sequence	<ul style="list-style-type: none"> <li>Error while saving in FBG11B.</li> <li>Startup not performed with FBG. Perform startup with MotionStudio or select a new motor.</li> </ul>
38	FBG11B incorrect data set	Stored data set does not match the unit



## 6.2 Status displays

### 6.2.1 Basic unit / keypad FBG11B

The status displays on the unit are as follows:

State	Display (optionally with FBG11B key pad)	Basic unit status LED flash code	Unit status (high byte in status word 1)
"ENABLE"	Speed	Constant green light	4
"ENABLE" at current limit	Speed flashes	Rapid green flashing	
"CURRENT AT STAND-STILL"	dc	Slow green flashing	3
"NO ENABLE"	Stop	Constant yellow light	2
"FACTORY SETTING"	SEt	Rapid yellow flashing	8
"CONTROL.INHIBIT"	oFF	Rapid yellow flashing	1
"24 V operation"	24U flashing	Slow yellow flashing	0
"SAFE STOP" <sup>1)</sup>	U flashing or 24U flashing	Slow yellow flashing	17
FBG manual mode active or inverter stopped using STOP button.	FBG manual operation symbol or "stop" is flashing	Yellow on long, off briefly	
Timeout	Errors 43 / 47	Flashing green/yellow	
Copy	Error 97	Flashing red/yellow	
System error	Error 10 / 17 – 24 / 25 / 32 / 37 / 38 / 45 / 77 / 80 / 94	Constant red light	
Overvoltage / phase failure	Errors 4 / 6 / 7	Slow red flashing	
Overload	Errors 1 / 3 / 11 / 44 / 84	Rapid red flashing	
Monitoring	Errors 8 / 26 / 34 / 81 / 82	2 x red flashing	
Motor protection	Errors 31 / 84	3 x red flashing	

1) "U" flashing (status 17) if connected to supply system, "24U" flashing (status 0) if in backup mode.

- ▲ WARNING** Incorrect interpretation of display U = "Safe stop" active.  
 Severe or fatal injuries.
  - The display U = "Safe stop" is not safety-related and must not be used as a safety function.



*Cause for controller inhibit (OFF)*

The controller inhibit (OFF) can be caused by the following conditions:

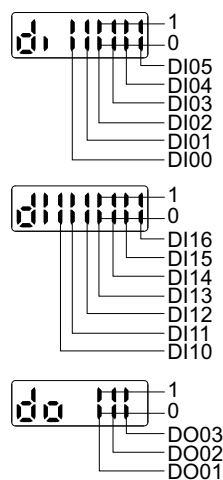
- Binary input terminal (DI00, DI02 – DI05) programmed to controller inhibit and activated.
- Controller inhibit due to PC manual mode via MOVITOOLS® MotionStudio.
- Temporary controller inhibit: Is triggered if a change of parameter *P100 setpoint source* would directly cause an enable signal. The temporary controller inhibit is removed once the enable signal is reset for the first time.
- Controller inhibit set via IPOS control word H484.

### 6.2.2 Status of digital inputs / outputs

The following parameters are available in the parameter menu as display parameters:

- *P039 Digital inputs of basic unit*
- *P048 Digital inputs option*
- *P059 Digital outputs*

The status is displayed as binary. Every digital input or output has two segments vertically on top of one another of the 7-segment display assigned to it. The upper segment lights up when the digital input or output is set, and the lower segment lights up when the digital input or output is not set. The two 7-segment displays on the right indicate whether *P039* (di = digital inputs basic unit), *P048* (di = digital inputs option), or *P059* (do = digital outputs) are output.



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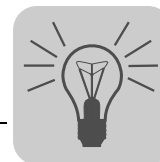
If no FIO21B with digital inputs is available, the display will show d1 - - -.



## 7 Service / list of faults

### 7.1 List of faults (F00 – F113)

No.	Designation	Response	Possible cause	Measures
00	No error	–	–	–
01	Overcurrent	Immediate switch-off with inhibit	• Short circuit at output	• Eliminate short circuit
			• Output switching	• Switching with inhibited output stage only
			• Motor too large	• Connect a smaller motor
			• Faulty output stage	• Consult SEW Service if the fault cannot be reset
03	Ground fault	Immediate switch-off with inhibit	• Ground fault in motor	• Replace motor
			• Ground fault in inverter	• Replace MOVITRAC® B
			• Ground fault in the motor supply lead	• Eliminate ground fault
			• Overcurrent (see F01)	• See F01
04	Brake chopper	Immediate switch-off with inhibit	• Too much regenerative power	• Extend deceleration ramps
			• Braking resistor circuit interrupted	• Check supply cable to braking resistor
			• Short circuit in the braking resistor circuit	• Eliminate short circuit
			• Braking resistance too high	• Check technical data of braking resistor
			• Brake chopper defective	• Replace MOVITRAC® B
			• Ground fault	• Eliminate ground fault
06	Line phase failure	Immediate switch-off with inhibit (only with 3-phase inverter)	• Phase failure	• Check the line cable
			• Line voltage too low	• Check the line voltage
07	DC link over-voltage	Immediate switch-off with inhibit	• DC link voltage too high	• Extend deceleration ramps • Check supply cable to braking resistor • Check technical data of braking resistor
			• Ground fault	• Eliminate ground fault
08	Speed monitoring	Immediate switch-off with inhibit	Current controller works at the set limit due to:	–
			• Mechanical overload	• Reduce load • Check current limitation • Extend deceleration ramps • Increase the set deceleration time P501 <sup>1)</sup>
			• Phase failure in supply system	• Check line phases
			• Phase failure in motor	• Check motor cable and motor
			• Maximum speed for VFC operating modes exceeded	• Reduce maximum speed
09	Startup	Immediate switch-off with inhibit	• Inverter not started yet	• Start up the inverter
			• Unknown motor selected	• Select another motor
10	IPOS-ILLOP	Stop with inhibit With IPOS only	• Wrong command during program execution	• Check the program
			• Incorrect conditions during program execution	• Check program run
			• Function does not exist / is not implemented in the inverter	• Use another function



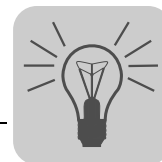
No.	Designation	Response	Possible cause	Measures
11	Overtemperature	Stop with inhibit	<ul style="list-style-type: none"> <li>Thermal overload of inverter</li> </ul>	<ul style="list-style-type: none"> <li>Reduce load and/or ensure adequate cooling</li> <li>If a braking resistor is integrated in the heat sink: Install braking resistor externally</li> </ul>
17 – 24	System error	Immediate switch-off with inhibit	<ul style="list-style-type: none"> <li>Inverter electronics is faulty, possibly due to EMC</li> </ul>	<ul style="list-style-type: none"> <li>Check grounding and shielding and improve, if necessary</li> <li>Contact SEW Service for advice if this error reoccurs.</li> </ul>
25	EEPROM	Stop with inhibit	<ul style="list-style-type: none"> <li>Error while accessing EEPROM</li> </ul>	<ul style="list-style-type: none"> <li>Restore factory settings, perform reset and reset parameters.</li> <li>Consult SEW Service if the error reoccurs</li> </ul>
26	External terminal	Programmable	<ul style="list-style-type: none"> <li>Read in external fault signal via programmable input.</li> </ul>	<ul style="list-style-type: none"> <li>Eliminate respective cause; reprogram terminal if necessary</li> </ul>
31	TF/TH trip	Stop without inhibit <ul style="list-style-type: none"> <li>"Ready" signal is maintained</li> </ul>	<ul style="list-style-type: none"> <li>Motor too hot, TF sensor has tripped</li> </ul>	<ul style="list-style-type: none"> <li>Let motor cool off and reset fault</li> </ul>
			<ul style="list-style-type: none"> <li>TF sensor of motor not connected or connected incorrectly</li> <li>Connection of MOVITRAC® B and TF on motor interrupted</li> </ul>	<ul style="list-style-type: none"> <li>Check connections between MOVITRAC® B and TF</li> </ul>
32	IPOS index overflow	Stop with inhibit	<ul style="list-style-type: none"> <li>Programming principles violated leading to internal stack overflow</li> </ul>	<ul style="list-style-type: none"> <li>Check user program and correct it</li> </ul>
34	Ramp timeout	Immediate switch-off with inhibit	<ul style="list-style-type: none"> <li>Set ramp time exceeded.</li> </ul>	<ul style="list-style-type: none"> <li>Extend the ramp time</li> </ul>
			<ul style="list-style-type: none"> <li>If you remove the inhibit and the drive exceeds the stop ramp time t13 by a certain time, the inverter will signal F34</li> </ul>	<ul style="list-style-type: none"> <li>Extend the stop ramp time</li> </ul>
35	Ex-e protection operating mode	Immediate switch-off with inhibit	<ul style="list-style-type: none"> <li>Wrong operating mode selected</li> </ul>	Permitted modes: <ul style="list-style-type: none"> <li>V/f, VFC, VFC hoist</li> </ul> Incorrect modes: <ul style="list-style-type: none"> <li>Flying start function</li> <li>DC braking</li> <li>Group operation</li> </ul>
			<ul style="list-style-type: none"> <li>Non-permitted parameter set</li> </ul>	<ul style="list-style-type: none"> <li>Use only parameter set 1</li> </ul>
			<ul style="list-style-type: none"> <li>No Ex-e motor taken into operation</li> </ul>	<ul style="list-style-type: none"> <li>Startup the Ex-e motor</li> </ul>
			<ul style="list-style-type: none"> <li>Incorrect parameterization of the frequency points</li> </ul>	<ul style="list-style-type: none"> <li>Frequency A &lt; frequency B</li> <li>Frequency B &lt; frequency C</li> </ul>
			<ul style="list-style-type: none"> <li>Incorrect parameterization of the current limits</li> </ul>	<ul style="list-style-type: none"> <li>Current limit A &lt; current limit B</li> <li>Current limit B &lt; current limit C</li> </ul>
36	Option missing	Immediate switch-off with inhibit	<ul style="list-style-type: none"> <li>Type of option card not allowed</li> </ul>	<ul style="list-style-type: none"> <li>Use correct option card</li> </ul>
			<ul style="list-style-type: none"> <li>Setpoint source, control signal source or operating mode not permitted for this option card</li> </ul>	<ul style="list-style-type: none"> <li>Set correct setpoint source</li> <li>Set correct control signal source</li> <li>Set correct operating mode</li> <li>Check parameters P120 and P121</li> </ul>
			<ul style="list-style-type: none"> <li>Required option missing</li> </ul>	<ul style="list-style-type: none"> <li>Check the following parameters:               <ul style="list-style-type: none"> <li>P121 for FBG11B</li> <li>P120 and P642 for FIO12B</li> </ul> </li> </ul>
			<ul style="list-style-type: none"> <li>Front module FIO21B not supplied</li> </ul>	<ul style="list-style-type: none"> <li>Set P808 to "On" or supply basic unit with external 24 V</li> </ul>
37	System watchdog	Immediate switch-off with inhibit	<ul style="list-style-type: none"> <li>Error while executing the system software</li> </ul>	<ul style="list-style-type: none"> <li>Check grounding and shielding and improve, if necessary</li> <li>Contact SEW Service for advice if this error reoccurs.</li> </ul>



## Service / list of faults

### List of faults (F00 – F113)

No.	Designation	Response	Possible cause	Measures
38	System software	Immediate switch-off with inhibit	<ul style="list-style-type: none"> <li>System error</li> </ul>	<ul style="list-style-type: none"> <li>Check grounding and shielding and improve, if necessary</li> <li>Contact SEW Service for advice if this error reoccurs.</li> </ul>
43	RS485 timeout	Stop without locking <sup>2)</sup>	<ul style="list-style-type: none"> <li>Connection between inverter and PC interrupted.</li> <li>Communication to FSE24B interrupted</li> </ul>	<ul style="list-style-type: none"> <li>Check connection between inverter and PC</li> <li>Check voltage supply</li> <li>Check P808</li> </ul>
44	Unit utilization	Immediate switch-off with inhibit	<ul style="list-style-type: none"> <li>Unit utilization (<math>I \times t</math> value) exceeded</li> </ul>	<ul style="list-style-type: none"> <li>Decrease power output</li> <li>Extend ramps</li> <li>If neither is possible: Use a larger inverter</li> </ul>
45	Initialization	Immediate switch-off with inhibit	<ul style="list-style-type: none"> <li>Error during initialization</li> </ul>	<ul style="list-style-type: none"> <li>Contact SEW Service</li> </ul>
47	System bus 1 timeout	Stop without inhibit <sup>2)</sup>	<ul style="list-style-type: none"> <li>Fault during communication via system bus</li> </ul>	<ul style="list-style-type: none"> <li>Check system bus connection</li> <li>Check P808</li> <li>Check voltage supply of FSE24B</li> <li>Check EtherCAT communication with connected FSE24B</li> </ul>
77	IPOS control word	Stop with inhibit	<ul style="list-style-type: none"> <li>System error</li> </ul>	<ul style="list-style-type: none"> <li>Contact SEW Service</li> </ul>
80	RAM test	Immediate switch-off	<ul style="list-style-type: none"> <li>Internal unit error, RAM defective</li> </ul>	<ul style="list-style-type: none"> <li>Contact SEW Service</li> </ul>
81	Start condition	Immediate switch-off with inhibit	<p><b>Only in "VFC hoist" operating mode:</b></p> <p>The motor could not be supplied with the correct amount of current during the pre-magnetizing time:</p> <ul style="list-style-type: none"> <li>Rated motor power too small in relation to rated inverter power</li> <li>Motor cable cross section too small</li> </ul>	<ul style="list-style-type: none"> <li>Check connection between inverter and motor</li> <li>Check startup data and perform new startup, if necessary.</li> <li>Check cross section of motor cable and increase if necessary.</li> </ul>
82	Open output	Immediate switch-off with inhibit	<p><b>Only in "VFC hoist" operating mode:</b></p> <ul style="list-style-type: none"> <li>2 or all output phases interrupted</li> <li>Rated motor power too small in relation to rated inverter power</li> </ul>	<ul style="list-style-type: none"> <li>Check connection between inverter and motor</li> <li>Check startup data and perform new startup, if necessary.</li> </ul>
84	Motor protection	Stop with inhibit	<ul style="list-style-type: none"> <li>Motor utilization too high.</li> </ul>	<ul style="list-style-type: none"> <li>Check P345 / P346 <math>I_N</math>-UL monitoring</li> <li>Reduce load</li> <li>Extend ramps</li> <li>Longer rest periods</li> </ul>
94	EEPROM checksum	Immediate switch-off with inhibit	<ul style="list-style-type: none"> <li>Defective EEPROM</li> </ul>	<ul style="list-style-type: none"> <li>Contact SEW Service</li> </ul>
97	Copy error	Immediate switch-off with inhibit	<ul style="list-style-type: none"> <li>Parameter module is removed during copying process</li> <li>Switching off/on during copying process</li> </ul>	<p>Prior to fault acknowledgement:</p> <ul style="list-style-type: none"> <li>Load factory setting or complete data set from parameter module</li> </ul>
98	CRC error flash	Immediate switch-off	<ul style="list-style-type: none"> <li>Internal unit error, flash memory defective.</li> </ul>	<ul style="list-style-type: none"> <li>Send unit in for repair</li> </ul>
100	Vibration/warning	Display fault	<ul style="list-style-type: none"> <li>Vibration sensor warning (see "DUV10A diagnostic unit" operating instructions)</li> </ul>	<ul style="list-style-type: none"> <li>Determine cause for vibration, operation possible until F101</li> </ul>
101	Vibration error	Rapid stop	<ul style="list-style-type: none"> <li>Vibration sensor signals fault</li> </ul>	<ul style="list-style-type: none"> <li>SEW-EURODRIVE recommends that you remedy the cause of the vibrations immediately</li> </ul>



No.	Designation	Response	Possible cause	Measures
102	Oil aging/warning	Display fault	<ul style="list-style-type: none"> <li>Oil aging sensor warns</li> </ul>	<ul style="list-style-type: none"> <li>Schedule oil change</li> </ul>
103	Oil aging/fault	Display fault	<ul style="list-style-type: none"> <li>Oil aging sensor signals fault</li> </ul>	<ul style="list-style-type: none"> <li>SEW-EURODRIVE recommends that you change the gear unit oil immediately.</li> </ul>
104	Oil aging/over-temperature	Display fault	<ul style="list-style-type: none"> <li>Oil aging sensor signals overtemperature</li> </ul>	<ul style="list-style-type: none"> <li>Let oil cool down</li> <li>Check if the gear unit cools properly</li> </ul>
105	Oil aging/ready signal	Display fault	<ul style="list-style-type: none"> <li>Oil aging sensor is not ready for operation</li> </ul>	<ul style="list-style-type: none"> <li>Check voltage supply of oil aging sensor</li> <li>Check and, if necessary, replace the oil aging sensor</li> </ul>
106	Brake wear	Display fault	<ul style="list-style-type: none"> <li>Brake lining worn</li> </ul>	<ul style="list-style-type: none"> <li>Replace brake lining (see "Motors" operating instructions)</li> </ul>
110	Ex-e protection	Emergency stop	<ul style="list-style-type: none"> <li>Duration of operation below 5 Hz exceeded</li> </ul>	<ul style="list-style-type: none"> <li>Check configuration</li> <li>Shorten duration of operation below 5 Hz</li> </ul>
111	System bus (SBus) error	This error number signals the EtherCAT or fieldbus master that the communication between FSE24B and MOVITRAC® B is interrupted. MOVITRAC® B would detect error 47.		<ul style="list-style-type: none"> <li>Check FSE24B plug connection</li> </ul>
113	Analog input wire break	Programmable	<ul style="list-style-type: none"> <li>AI1 analog input wire break</li> </ul>	<ul style="list-style-type: none"> <li>Check wiring</li> </ul>
116	Error application module <i>Suberror:</i> 14: Encoder error 29: Limit switch contacted 42: Lag error 78: Software limit switch reached			

- 1) To set speed monitoring, changer parameter *P500 / P502* and *P501 / P503*. The sagging of hoists cannot be avoided safely when monitoring is deactivated or the delay time is set too long.
- 2) No reset required, error message disappears after communication is reestablished.



## **7.2 SEW electronics service**

### **7.2.1 Hotline**

Call the Drive Service Hotline to talk to an SEW-EURODRIVE service specialist on 365 days a year, 24 hours a day.

Simply dial the prefix **0800** and then enter the key combination **SEWHELP**. Or simply dial **0800 739 4357**.

### **7.2.2 Send in for repair**

Contact **SEW Electronics Service** if you cannot rectify a fault.

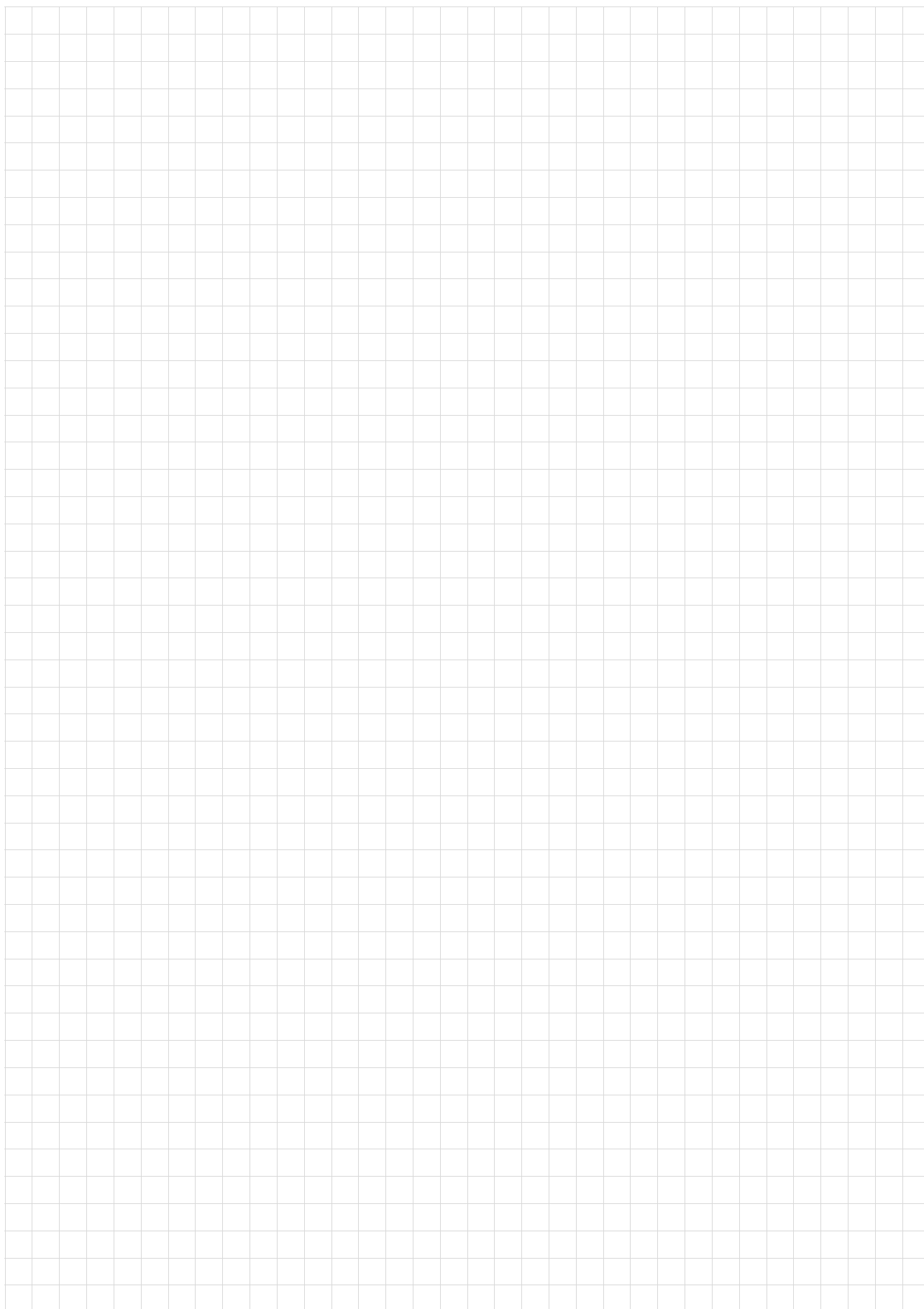
Always specify the unit status code number when you contact the SEW electronics service so that our service personnel can assist you more effectively.

Provide the following information when sending the unit in for repair:

- Serial number (see nameplate)
- Type designation
- Short description of the application (application, control via terminals or serial)
- Connected motor (motor voltage, star or delta connection)
- Nature of the error
- Peripheral circumstances
- Your own presumptions as to what has happened
- Unusual events preceding the problem











**SEW-EURODRIVE**  
Driving the world

**SEW**  
**EURODRIVE**

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