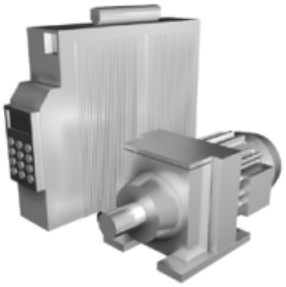
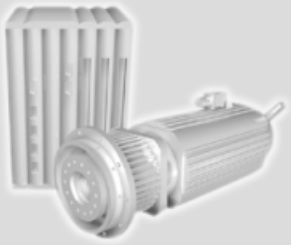
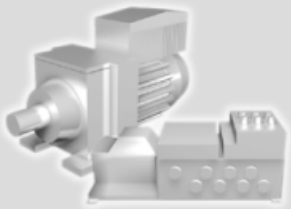
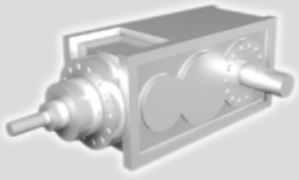
SEW EURODRIVE











MOVITRAC® B
Keypad

GA3A000

Edition 07/2006
11469811 / EN

Operating Instructions

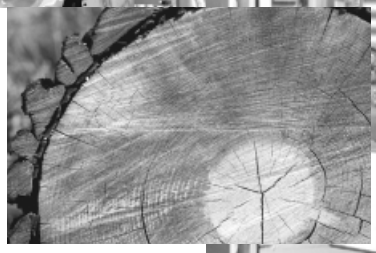














SEW
EURODRIVE

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1 Important notes

1.1 Explanation of pictograms

Always follow the safety and warning notes in this publication.



Hazard

Indicates an imminently hazardous situation, which if not avoided, WILL result in death or serious injury.



Warning

Indicates an imminently hazardous situation caused by the product, which if not avoided, WILL result in death or serious injury. You will also find this signal to indicate the potential for damage to property.



Caution

Indicates a potentially hazardous situation which, if not avoided, MAY result in minor injury or damage to products.



Note

Indicates a reference to useful information, e.g. on startup.



Documentation reference

Indicates a reference to a document, such as operating instructions, catalog, data sheet.



You must adhere to the operating instructions to ensure:

- Fault-free operation
- Fulfillment of any rights to claim under limited warranty

Read the operating instructions before you start working with the unit.

The operating instructions contain important information on servicing. Therefore, keep the manual close to the unit.

1.2 Designated use

The frequency inverters from SEW-EURODRIVE operate AC motors. These motors must be suitable for operation with frequency inverters. Do not connect any other loads to the frequency inverters.

Frequency inverters are devices for stationary installation in control cabinets. Adhere to all instructions referring to the technical data and the permissible conditions where the unit is operated.

Do not start up the unit (take it into operation in the designated fashion) until you have verified that:

- The machine complies with the EMC directive 98/37/EC.
- The end product complies with the Machinery Directive 98/37/EC, also with reference to EN 60204.

1.2.1 Operational environment

The following applications are prohibited unless measures are expressly taken to make them possible:

- Use in potentially explosive areas.
- Operation in environments with harmful substances to EN 60721, such as oils, acids, gases, vapors, dusts, radiations.
- Operation with mechanical vibration and shock loads in excess of the regulations stipulated in EN 61800-5-1.
- If the inverter performs safety functions that have to guarantee the protection of machinery and people.

1.3 Disposal

Please follow the current regulations: Dispose in accordance with the material structure and the regulations in force.

2 Safety notes

2.1 Installation and startup

- Never install damaged products or take them into operation. Submit a complaint to the shipping company immediately in the event of damage.
- Installation, startup and service work on the unit to be performed by trained personnel only. Such personnel must have undergone accident prevention training and adhere to the applicable regulations (such as EN 60204, VBG 4, DIN-VDE 0100/ 0113/0160).
- Follow the specific instructions during installation and startup of the motor and the brake!



- Preventive measures and protection devices must correspond to the regulations in force (e.g. EN 60204 or EN 61800-5-1).

  The unit must be grounded as a protective measure.

  Overcurrent protection devices are a necessary protection device.
- 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 reliable isolation so as to guarantee reliable isolation.
- Take suitable measures to ensure that the connected motor does not start up automatically when the inverter is switched on (for example by disconnecting the electronics terminal block).

2.2 Operation and service

- Disconnect the unit from power supply before you remove the protective cover. Dangerous voltages may still be present for up to ten minutes after disconnection from the power supply source.



- The unit has IP00 enclosure with the protective cover removed. Dangerous voltages are present at all subassemblies except for the control electronics. The unit must be closed during operation.
- When the unit switch is in the ON position, dangerous voltages are present at the output terminals as well as any connected cables and motor terminals. Dangerous voltages may even occur if the unit is inhibited and the motor is at standstill.
- The unit may not necessarily be free from any voltages even if the displays are no longer illuminated.



- Safety functions of the unit or mechanical blocking may result in a motor standstill. Removing the cause of this problem or performing a reset can result in the drive re-starting on its own. If, for safety reasons, this is not permitted for the driven machine, disconnect the unit from the mains before correcting the fault.
- Switch the frequency inverter output with inhibited output stage only.
- Ensure a minimum time of 120 s between two mains activations for AC 230 V / 1-phase units.
- Observe a minimum switch-off time of 10 s for 3-phase units.



Risk of burns

Braking resistors have surface temperatures of up to 250 °C.

3 Startup

3.1 Optional keypad

3.1.1 Preliminary work and resources for MOVITRAC® B with keypad

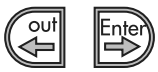
- Check the installation (sec. "Installation").
- Connect the supply system and the motor. **Do not connect signal terminals!**
- Switch on the power supply system.
- Display shows Stop.
- Program the signal terminals.
- Set the parameters correctly (e.g. ramps).
- Check the set terminal assignment (P601 ... P622).
- Switch off the power supply system.
- Connect the signal terminals.
- Switch on the power supply system.



The inverter automatically changes parameter values once you perform a startup.

3.1.2 Keypad functions

The UP / DOWN and ENTER / OUT buttons are used for navigating through the menus. Use the RUN and STOP/RESET buttons to control the drive. The setpoint generator is used for selecting setpoints.

	Use UP / DOWN to select symbols and change the values.
	ENTER/OUT to activate and deactivate the symbols or parameter menus
	Press "RUN" to start the drive.
	"STOP/RESET" is used for resetting errors and for stopping the drive.



The STOP/RESET button has priority over a terminal enable or an enable via the interface. If you stop a drive using the STOP/RESET key, you have to enable it again by pressing the RUN key.



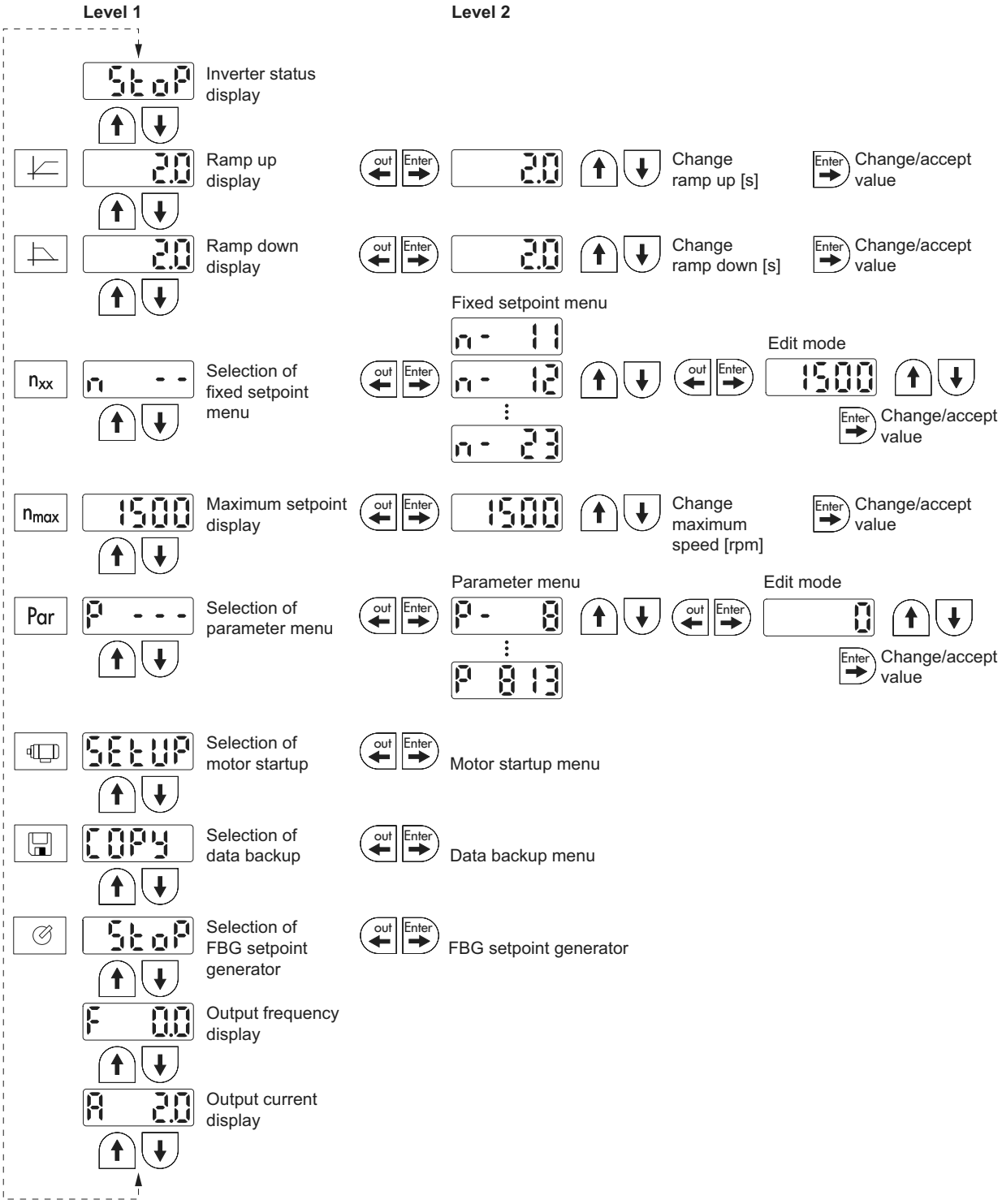
Switching the power supply system off and on re-enables the inverter!

The STOP/RESET key can be used for performing a reset after an error has occurred with a programmed error response. The drive is then inhibited and must be enabled using the RUN key.



If you stop the drive with the STOP/RESET key, the display Stop flashes. This signal indicates you have to enable the drive using the "RUN" key.

3.2 Basic operation of the FBG11 keypad



3.2.1 Menu system

The LED integrated in the symbol lights up when you select a symbol. In the case of symbols, which only represent display values, the current display value appears immediately on the display.

Changing parameters

You can select the required parameter by selecting a symbol and pressing the ENTER key.

Press the ENTER key again to edit the parameter value. You can alter the value when the LED in the corresponding symbol flashes. Pressing the ENTER key again activates the value and the symbol is not flashing any longer.

3.2.2 Status displays

If the status is "Drive enabled", the display will show the calculated actual speed.

- Drive "Controller inhibit": `oFF`
- Drive "No enable": `StoP`
- Drive "enabled": `8888` (Actual speed)
- Factory setting in progress: `SEt`
- Current at standstill: `dc`
- 24V operation. `24U`

3.2.3 Error display

In the event of an error or fault, the display changes and flashes the fault code, for example `F-11` (refer to the fault list in the "Operation and service" section). This situation will not occur during active startup.

3.2.4 Warnings

You may not alter any parameter in any operating mode. If you try to do so, `r-19` ... `r-32` appears on the display. The display shows a code depending on the action, e.g. `r-28` (controller inhibit required). You will find a list of warnings in the section "Operation and service".

3.3 FBG setpoint generator and external setpoint selection

FBG setpoint generator of the keypad (local manual operation): **LED flashes**

External setpoint selection

Control via

- Terminals
- Serial interface
- Setpoint potentiometer connected to AI11/AI12

3.3.1 FBG setpoint generator

The only relevant parameters in "manual setpoint generator" operating mode are:

- *P122 FBG manual operation*
- "RUN" and "STOP/RESET" buttons
- Setpoint generator

The LEDs and the symbol are flashing with active manual setpoint generator.

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 generator" operating mode will be active once again. The drive remains stopped.

The `Stop` display flashes to indicate that you have to re-enable the drive by pressing "RUN."

The *P760 Locking run/stop keys* parameter does not have any effect in "manual setpoint generator" operating mode.

Removing the FBG11B keypad will trigger a stop response.

3.3.2 External setpoint selection

Set direction of rotation

You can specify the set direction of rotation:

- "CW/STOP" and "CCW/STOP" in *P101 Control signal source = TERMINALS* or *P101 Control signal source = 3-WIRE-CONTROL*
- The polarity of the setpoint in the process data word in *P101 Control signal source = RS485 or SBus* **and** *P100 Setpoint source = RS485 or SBus*

Set speed

You can specify the set speed:

- Setpoint generator (if *P121 Addition setpoint generator* is set to ON)
- *P100 Setpoint source*
  - Fixed setpoints
  - Fixed setpoints with analog input
  - Process data word from SBus or RS-485
  - Motor potentiometer

Direction of rotation enable with RS-485 or SBus

Unipolar setpoint sources:

UNIPOL./FIX.SETPT
MOTOR POTENTIOM.
FIX.SETPT+AI1
FIX.SETPT*AI1
FREQUENCY INPUT

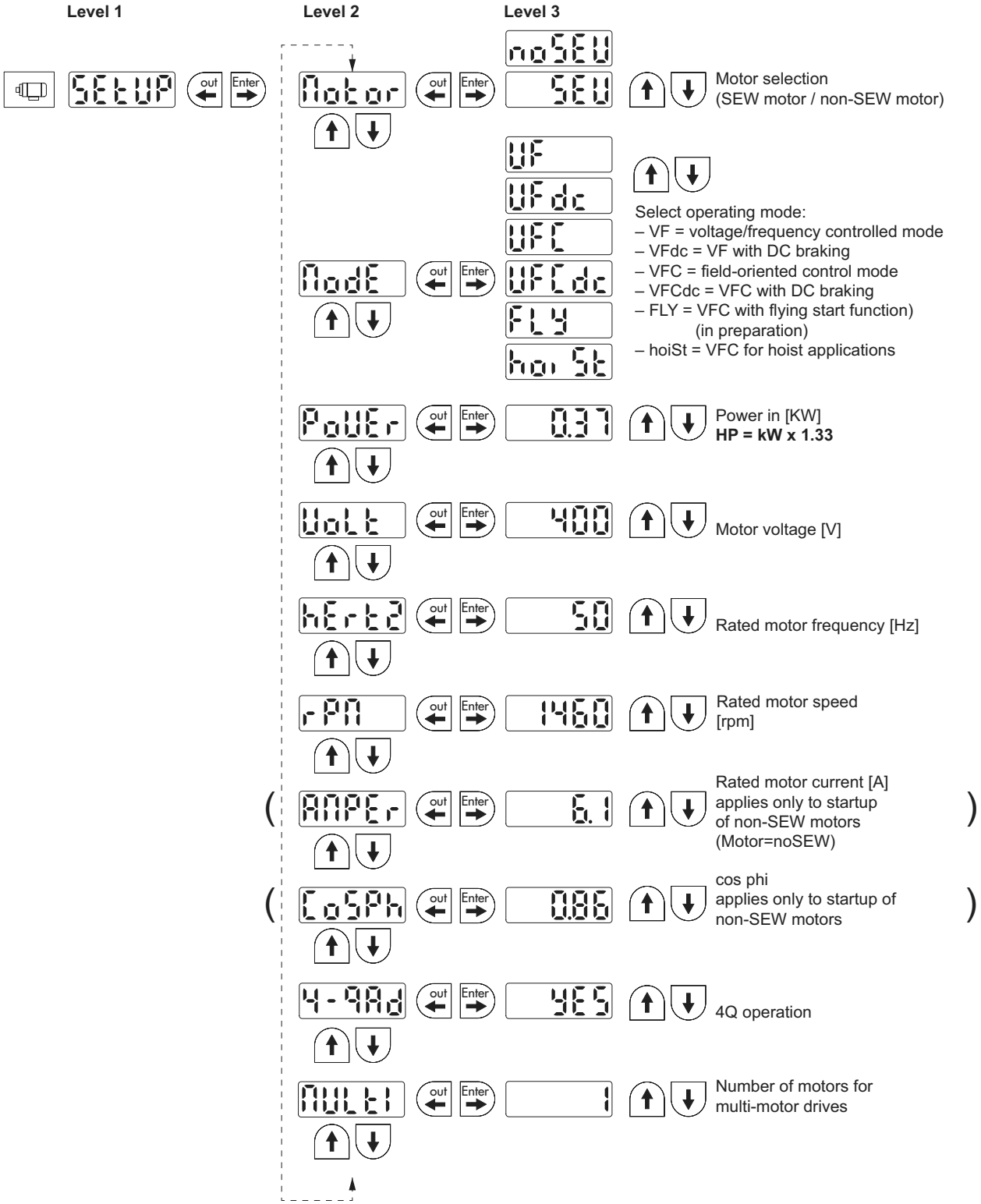
The direction of rotation is set with the CW or CCW terminals.

Bipolar setpoint sources:

BIPOL./FIX.SETPT
RS485
SBUS

The direction of rotation is set by the setpoint. Enable with terminal CW or CCW.

3.4 Startup with the FBG keypad



3.4.1 Activating startup

Requirements:

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

3.4.2 V/f

The default operating mode setting is V/f. Use this operating mode if you have no particular requirements and when a high maximum speed is required.

3.4.3 VFC

Startup 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

To do this, during startup you must select operating mode VFC or VFC + DC brake in point `P-01`.

3.4.4 Startup multi-motor drive

Multi-motor drives are possible with installed identical SEW motors only.

- Set the multi parameter of the motor startup to the number of connected motors.

3.4.5 Startup of group drives

You can operate a group of asynchronous motors on one inverter in V/f CHARACTERISTIC operating mode. Important:

- Select V/f operating mode
- Set the power of the largest motor
- Disable automatic adjustment P320/330
- Set Boost P321/331 to zero
- Set IxR compensation P322/332 to zero
- Set slip compensation P324/334 to zero
- Set current limit P303/313 to 1.5 times the total current of all motors
- Set I_N-UL monitoring P345/346 to the total current of the connected mtors. Motor protection must be implemented individually.

In this operating mode, the inverter operates without slip compensation and with a constant V/f ratio.



The parameter settings apply to all connected motors.

3.5 Parameter list

All parameters which can also be displayed and edited using the keypad are indicated as follows in the "FBG" (keypad) column:

- Selection in short or long menu
- Selection in short menu
- Selection via symbol on keypad
- Selection in the FBG motor startup

If a choice is offered, the factory setting is indicated in **bold**.

No.	FBG	Index dec.	Name	Range / factory setting		Value after startup
				Display	MOVITOOLS® MotionStudio	
0__			**Display values** (read only)			
00_			**Process values**			
000		8318	Speed (signed)		[rpm]	
002		8319	Frequency (signed)		[Hz]	
004		8321	Output current (amount)		[% I_N]	
005		8322	Active current (signed)		[% I_N]	
008	A-Z	8325	DC link voltage		[V]	
009		8310	Output current		[A]	
01_			**Status displays**			
010		8310	Inverter status		[Text]	
011		8310	Operating status		[Text]	
012		8310	Error status		[Text]	
014	A-Z	8327	Heat sink temperature		[°C]	
02_			**Analog setpoint**			
020		8331	Analog input AI1		[V]	

No.	FBG	Index dec.	Name	Range / factory setting		Value after startup
				Display	MOVITOOLS® MotionStudio	
03_			**Binary inputs**			
030			Binary input DI00		**Error reset**	
031		8335	Binary input DI01		CW/STOP (fixed assignment)	
032		8336	Binary input DI02		**CCW/STOP**	
033		8337	Binary input DI03		**ENABLE/RAP.STOP**	
034		8338	Binary input DI04		**n11/n21**	
035		8339	Binary input DI05		**n12/n22**	
039		8334	Binary inputs DI00 ... DI05		Binary display	
05_			**Binary outputs**			
051		8350	Binary output DO01		**/FAULT**	
052		8351	Binary output DO02		**BRAKE RELEASED**	
053		8916	Binary output DO03		READY FOR OPERATION	
059		8349	Binary outputs DO01, DO02		Binary display	
07_			**Unit data**			
070		8301	Unit type		[Text]	
071		8361	Rated output current		[A]	
076		8300	Firmware basic unit		[Part number and version]	
08_			**Error memory**			
080	A-Z ↔		Error t-0	Fault code	Background information for previous errors.	
09_			**Bus diagnostics**			
094		8455	PO1 setpoint		[hex]	
095	A-Z ↔	8456	PO2 setpoint		[hex]	
096	A-Z ↔	8457	PO3 setpoint		[hex]	
097		8458	PI1 actual value		[hex]	
098		8459	PI2 actual value		[hex]	
099		8460	PI3 actual value		[hex]	

No.	FBG	Index dec.	Name	Range / factory setting		Value after startup
				Display	MOVITOOLS® MotionStudio	
1__			**Setpoints/Ramp generators** (on FBG only parameter set 1)			
10_			**Setpoint selection**			
100	abc	8461	Setpoint source	0 **1** 2 4 6 7	BIPOL./FIX.SETPT: **UNIPOL./FIX.SETPT** RS-485 MOTOR POTENTIOMETER FIX.SETPT. + AI1 FIX.SETPT * AI1	
101	abc	8462	Control signal source	**0** 1 3 4	**TERMINALS** RS-485 SBus 3-WIRE CONTROL	
102	A-Z	8840	Frequency scaling	Setting range 0.1 ... **10** ... 120.00 [kHz]		
11_			**Analog input 1 (0 ... 10 V)**			
110	A-Z	8463	AI1 scaling	0.1 ... **1** ... 10		
112	abc	8465	AI1 operating mode	0 **1** 2 5 6	0-10V / 3000 rpm **N-MAX (0 – 10 V)** V-Off., N-MAX N-MAX (0 – 20 mA) N-MAX (4 – 20 mA)	
113	A-Z	8466	Setpoint voltage offset	–10 V ... **0** ... +10 V		
12_			**Setpoint generator of the FBG keypad**			
121	abc	8811	Addition setpoint generator	**0** 1 2	**OFF** ON ON EXCEPT FSP	
122	abc	8799	FBG manual operation	**0** 1 2	**UNIPOLAR CW** UNIPOLAR CCW BIPOLAR CW + CCW	
13_ / 14_			**Speed ramps 1 / 2**			
130 / 140		8807 / 9264	Ramp t11 / t21up	0.1 ... **2** ... 2000 [s]		
131 / 141		8808 / 9265	Ramp t11 / t21 down	0.1 ... **2** ... 2000 [s]		
136 / 146	abc	8476 / 8484	Stop ramp t13 / t23	0.1 ... **2** ... 20 [s]		
15_			**Motor potentiometer**			
150	A-Z	8809	Ramp t3 up = down	0.2 ... **20** ... 50 [s]		
152	A-Z	8488	Save last setpoint	**off** on	**OFF** ON	

No.	FBG	Index dec.	Name	Range / factory setting		Value after startup
				Display	MOVITOOLS® MotionStudio	
16_ / 17_			**Fixed setpoints**			
160 / 170		8489 / 8492	Internal setpoint n11 / n21 PI controller activated	0 ... **150** ... 5000 [rpm] 0 ... **3** ... 100 [%]		
161 / 171		8490 / 8493	Internal setpoint n12 / n22 PI controller activated	0 ... **750** ... 5000 [rpm] 0 ... **15** ... 100 [%]		
162 / 172		8491 / 8494	Internal setpoint n13 / n23 PI controller activated	0 ... **1500** ... 5000 [rpm] 0 ... **30** ... 100 [%]		
2__			**Controller parameters**			
25_			**PI controller**			
250	A-Z	8800	PI controller	**0** 1 2	**OFF** ON STANDARD ON INVERTED	
251	A-Z	8801	P-gain	0 ... **1** ... 64		
252	A-Z	8802	I-component	0 ... **1** ... 2000 [s]		
253	A-Z	8465	PI actual value mode	0 **1** 5 6	0 ... 10 V **0 ... 10 V** 0 ... 20 mA 4 ... 20 mA	
254	A-Z	8463	PI actual value scaling	0.1 ... **1.0** ... 10.0		
255	A-Z	8812	PI actual value offset	**0.0** ... 100.0 [%]		
3__			**Motor parameters** (on FBG only parameter set 1)			
30_ / 31_			**Limits 1 / 2**			
300 / 310	A-Z	8515 / 8519	Start/stop speed 1 / 2	0 ... **150** [rpm]		
301 / 311	A-Z	8516 / 8520	Minimum speed 1 / 2	0 ... **15** ... 5500 [rpm]		
302 / 312		8517 / 8521	Maximum speed 1 / 2	0 ... **1500** ... 5500 [rpm]		
303 / 313	A-Z	8518 / 8522	Current limit 1 / 2	0 ... **150** [% I_N]		
32_ / 33_			**Motor adjustment 1 / 2**			
320 / 330	A-Z	8523 / 8528	Auto adjustment 1 / 2	off **on**	OFF **ON**	
321 / 331	A-Z	8524 / 8529	Boost 1 / 2	0 ... 100 [%]		
322 / 332	A-Z	8525 / 8530	IxR adjustment 1 / 2	0 ... 100 [%]		

No.	FBG	Index dec.	Name	Range / factory setting		Value after startup
				Display	MOVITOOLS® MotionStudio	
323 / 333	A-Z	8526 / 8531	Premagnetization time 1 / 2	0 ... 2 [s]		
324 / 334	A-Z	8527 / 8532	Slip compensation 1 / 2	0 ... 500 [rpm]		
325	A-Z	8834	No-load vibration damping	**off** on	**OFF** ON	
345 / 346	A-Z	9114 / 9115	I_N-UL monitoring 1 / 2	0.1 ... 500 A		
4__			**Reference signals**			
40_			**Speed reference signal**			
400	A-Z	8539	Speed reference value	0 ... **750** ... 5000 [rpm]		
401	A-Z	8540	Hysteresis	0 ... **100** ... +500 [rpm]		
402	A-Z	8541	Delay time	0 ... **1** ... 9 [s]		
403	A-Z	8542	Signal = "1" if:	**0** 1	**$n < n_{ref}$** $n > n_{ref}$	
45_			**PI controller reference signal**			
450	A-Z	8813	PI actual value reference			
451	A-Z	8796	Signal = "1" if:	0 **1**	PI actual value < PI reference **PI actual value > PI reference**	
5__			**Monitoring functions** (on FBG only parameter set 1)			
50_			**Speed monitoring 1 / 2**			
500 / 502	A-Z	8557 / 8559	Speed monitoring 1 / 2	**0** 3	**OFF** ON	
501 / 503	A-Z	8558 / 8560	Delay time 1 / 2	0 ... **1** ... 10 [s]		
6__			**Terminal assignment**			
60_			**Binary inputs**			
601	abc	8336	Binary input DI02		0: NO FUNCTION 1: ENABLE/STOP (factory setting DI03) 2: CW/STOP 3: CCW/STOP (factory setting DI02) 4: n11/n21 (factory setting DI04) 5: n12/n22 (factory setting DI05) n13 = n11 + n12 6: FIXED SETP. SELECT 7: PARAMETER SET 2 9: MOTORPOT. UP 10: MOTORPOT. DOWN 11: /EXT. ERROR 12: ERROR RESET (factory setting DI00) 20: ACCEPT SETPOINT 26: TF RESPONSE (only with DI05) 30: CONTROLLER INHIBIT	
602	abc	8337	Binary input DI03			
603	abc	8338	Binary input DI04			
604	abc	8339	Binary input DI05			
608	abc	8844	Binary input DI00			

No.	FBG	Index dec.	Name	Range / factory setting		Value after startup
				Display	MOVITOOLS® MotionStudio	
62_			**Binary outputs**			
620	abc ↔	8350	Binary output DO01		0: NO FUNCTION 1: /FAULT (factory setting DO01) 2: READY (factory setting DO03) 3: OUTPUT STAGE ON 4: ROTATING FIELD ON 5: BRAKE RELEASED (factory setting DO02) 9: SPEED REFERENCE 11: SP/ACT.VAL.COMP. 23: PI ACTUAL VALUE REF.	
621	abc ↔	8351	Binary output DO02			
622	abc ↔	8916	Binary output DO03			
7__			**Control functions** (on FBG only parameter set 1)			
70_			**Operating mode 1 / 2**			
700 / 701		8574 / 8575	Operating mode 1 / 2	0 2 3 4 **21** 22	VFC 1 VFC & HOIST VFC 1 & DC BRAK. VFC & FLY.START **V/f CHARACTERISTICS** V/f CHARACTERISTIC & DC BRAKING	
71_			**Standstill current function 1 / 2**			
710 / 711	A-Z ↔	8576 / 8577	Standstill current function 1 / 2	**0** ... 50% I_{Mot}		
72_			**Setpoint stop function 1 / 2**			
720 / 723	A-Z ↔	8578 / 8581	Setpoint stop function 1 / 2	**off** on	**OFF** ON	
721 / 724	A-Z ↔	8579 / 8582	Stop setpoint 1 / 2	0 ... **30** ... 500 [rpm]		
722 / 725	A-Z ↔	8580 / 8583	Start offset 1 / 2	0 ... **30** ... 500 [rpm]		
73_			**Brake function 1 / 2**			
731 / 734	A-Z ↔	8749 / 8750	Brake release time 1 / 2	**0** ... 2 [s]		
732 / 735	A-Z ↔	8585 / 8587	Brake application time 1 / 2	0 ... 2 [s]		
76_			**Manual operation**			
760	A-Z ↔	8798	Lockout run/stop keys	**Off** On	**OFF** ON	
8__			**Unit functions** (on FBG only parameter set 1)			
80_			**Setup**			
800	A-Z ↔	–	Short menu	long short		
802	A-Z ↔	8594	Factory setting	**no** Hours ALL	**0 / NO** 1 / STANDARD 2 / DELIVERY STATUS	
803	A-Z ↔	8595	Parameter lock	**off** on	**OFF** ON	
804		8596	Reset statistics data		**NO** ERROR MEMORY	

No.	FBG	Index dec.	Name	Range / factory setting		Value after startup
				Display	MOVITOOLS® MotionStudio	
81_			**Serial Communication**			
810	A-Z	8597	RS-485 address	**0** ... 99		
811		8598	RS-485 group address	**100** ... 199		
812		8599	RS-485 remote timeout	**0** ... 650 [s]		
82_			**Brake operation 1 / 2**			
820 / 821		8607 / 8608	4-quadrant operation 1 / 2	off **on**	OFF **ON**	
83_			**Error responses**			
830	A-Z	8609	Response /EXT. ERROR	2 **4** 7	IMMEDIATE STOP/FAULT **STOP/FAULT** STOP/WARNING	
84_			**Reset behavior**			
840		8617	Manual reset		YES **NO**	
86_			**Modulation 1 / 2**			
860 / 861	A-Z	8620 / 8621	PWM frequency 1 / 2	**4** 8 12 16	**4 kHz** 8 kHz 12 kHz 16 kHz	
862 / 863	A-Z	8751 / 8752	PWM fix 1 / 2	on **off**	ON **OFF**	
87_			**Fieldbus parameter setting**			
870		8304	Setpoint description PO1		**NO FUNCTION** (factory setting P872) **SPEED** (factory setting P871) MAX. SPEED RAMP **CONTROL WORD 1** (factory setting P870) SPEED [%] PI CTRL SETPOINT	
871		8305	Setpoint description PO2			
872		8306	Setpoint description PO3			
873		8307	Actual value description PI1		NO FUNCTION **SPEED** (factory setting P874) **OUTPUT CURRENT** (factory setting P875) ACTIVE CURRENT **STATUS WORD 1** (factory setting P873) SPEED [%] IPOS PI-DATA PI CTRL [%]	
874		8308	Actual value description PI2			
875		8309	Actual value description PI3			
876		8622	PO data enable		OFF **ON**	

No.	FBG	Index dec.	Name	Range / factory setting		Value after startup
				Display	MOVITOOLS® MotionStudio	
88_			**Serial communication SBus**			
881	A-Z ↔	8600	SBus address	**0** ... 63		
882		8601	SBus group address	**0** ... 63		
883	A-Z ↔	8602	SBus timeout delay	**0** ... 650 [s]		
884	A-Z ↔	8603	SBus baud rate	125 250 **500** 1000	125 kbaud 250 kbaud **500 kbaud** 1000 kbaud	

4 Operation and service

4.1 Device information

4.1.1 Error memory

The inverter stores the error message in fault memory P080. The inverter does not save a new error until the error message has been acknowledged. The local operating panel shows the most recent error. Whenever double errors occur, the value stored in P080 does not correspond to the value displayed on the operating panel. This is an example of what happens with F-07 DC link overvoltage followed by F34 Ramp timeout.

The inverter stores the following information when a malfunction occurs:

- Error which has occurred
- Status of the binary inputs / binary outputs
- Operating status of the inverter
- Inverter status
- Heat sink temperature
- Speed
- Output current
- Active current
- Unit utilization
- DC link voltage

4.1.2 Reset keypad

An error message can be acknowledged by:

- Manual reset on the keypad (STOP/RESET key).

The STOP/RESET key has priority over a terminal enable or an enable via the interface.

The STOP/RESET key can be used for performing a reset after an error has occurred with a programmed error response. A reset inhibits the drive. To enable the drive, press the RUN key.

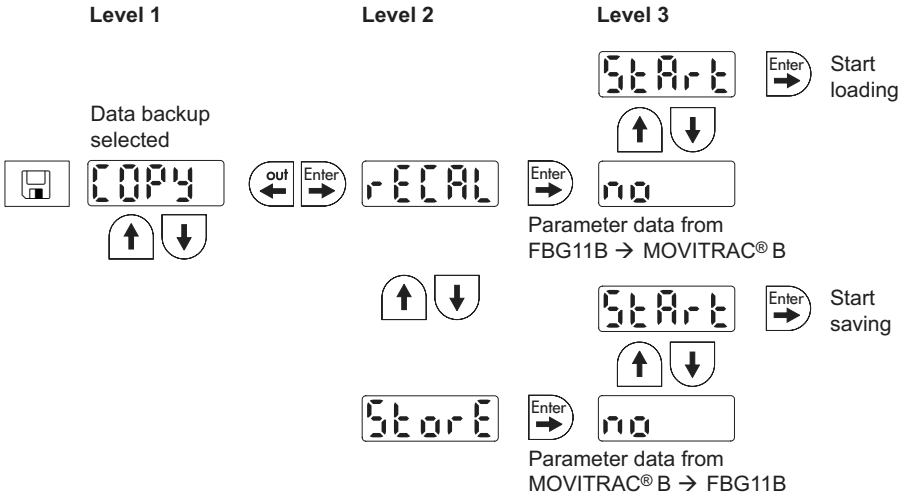
4.1.3 Current limit

The operation LED will start flashing green when the current limit is reached.

4.2 Data backup with FBG11B

Use the FBG11B keypad to download parameter data from the MOVITRAC® B to the keypad or copy from the keypad to the MOVITRAC® B.

Data backup with FBG11B



4.3 Return codes (r-19 ... r-38)

Return codes MOVITRAC® B:

No.	Designation	Meaning
19	Parameter lock activated	Parameters cannot be changed
20	Factory setting in progress	Parameters cannot be changed
28	Controller inhibit required	Controller inhibit required
29	Invalid value for parameter.	• Invalid value for parameter. • FBG manual operation selection invalid as PC is in active manual operation.
32	Enable	You cannot perform this function in ENABLED status
34	Error in sequence	• Fault when saving in FBG11B. • Startup did not occur. Perform FBG startup with MotionStudio or select a new motor.
38	FBG07B incorrect data set	Stored data set does not match the unit

4.4 Status displays

4.4.1 Keypad

If the status is "Drive enabled", the display will show the calculated actual speed.

Status	Display
Drive "Controller inhibit"	oFF
Drive "No enable"	StoP
Drive "Enable"	8888 (Actual speed)
Factory setting	SEt (Set)
Standstill current	dc
24 V operation	24U

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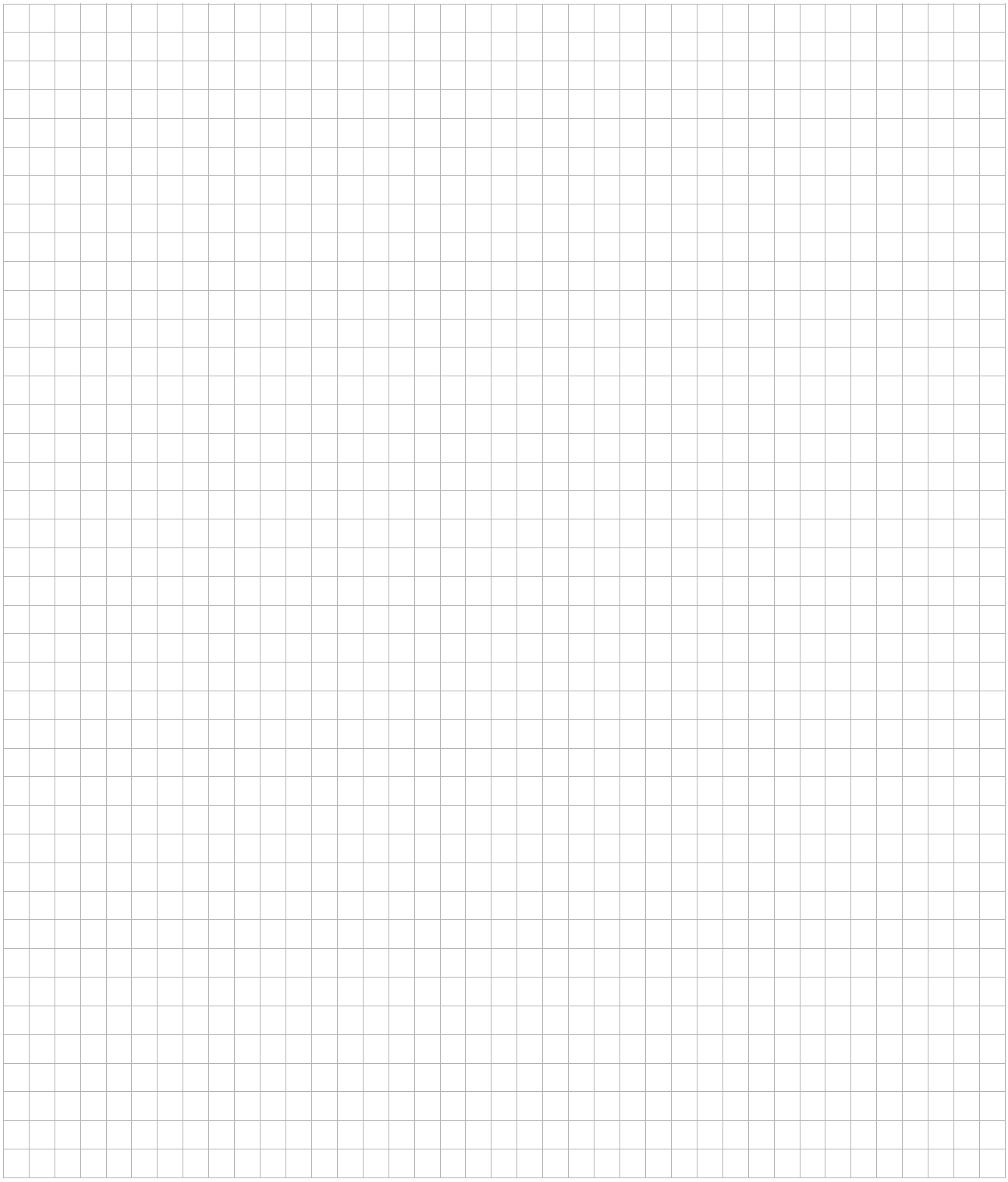
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