SEW EURODRIVE

MOVITRAC® 07

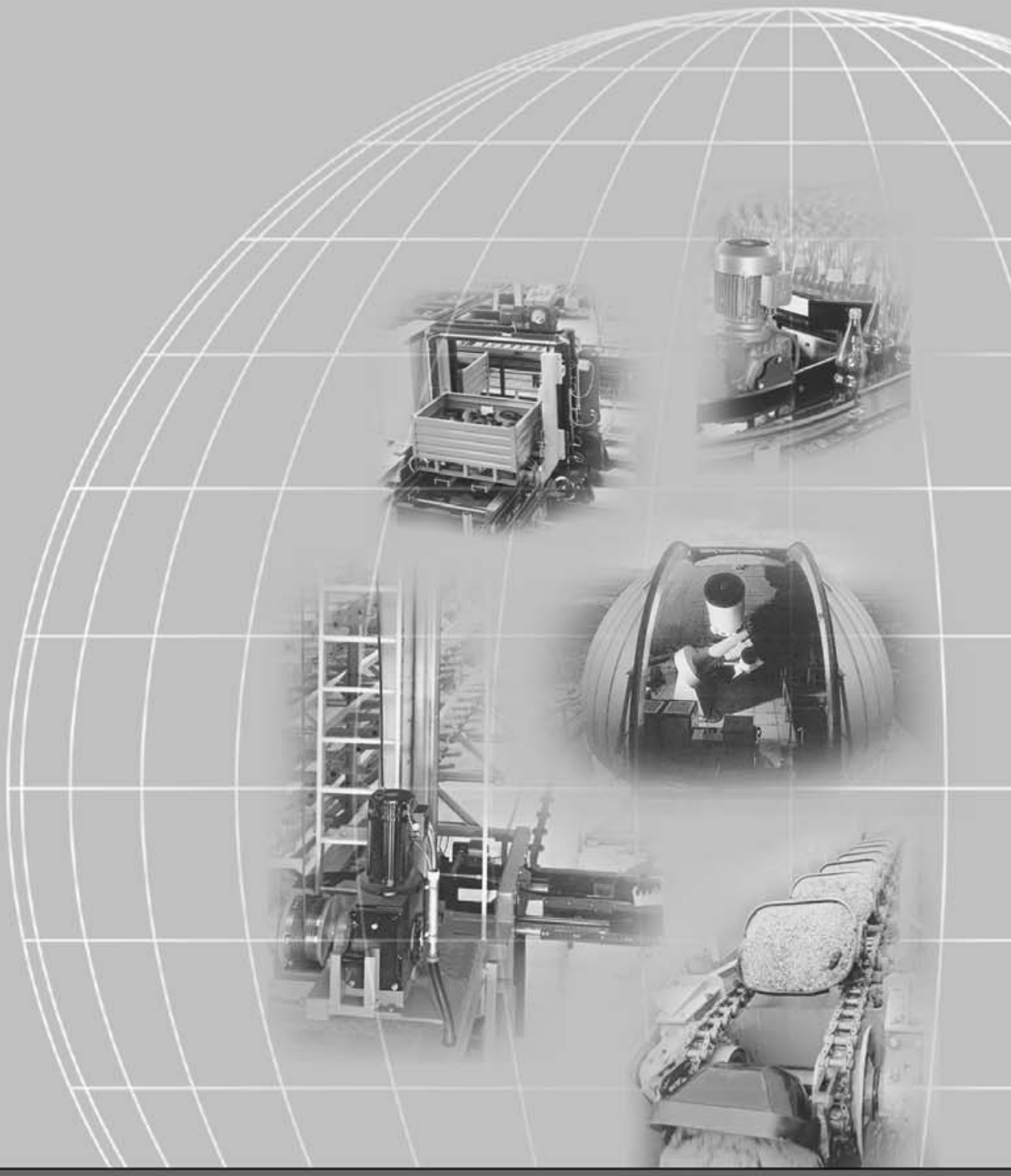
Edition

02/2003

Operating Instructions

1056 411x / EN

SEW
EURODRIVE



SEW-EURODRIVE

1 Important Notes

Safety and warning instructions

Always follow the safety and warning instructions contained in this publication!

Electrical hazard
Possible consequences: Severe or fatal injuries.

Hazard
Possible consequences: Severe or fatal injuries.

Hazardous situation
Possible consequences: Slight or minor injuries.

Harmful situation
Possible consequences: Damage to the unit and the environment.

Tips and useful information.

Unless the information in the operating instructions is adhered to, it will be impossible to ensure:

- Trouble-free operation
- Fulfillment of any rights to claim under guarantee

Consequently, read the operating instructions before you start working with the unit!

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

Designated use

MOVITRAC® 07 frequency inverters operate AC asynchronous motors. These motors must be suitable for operation with frequency inverters. Do not connect any other loads to the frequency inverters.

MOVITRAC® 07 frequency inverters are units intended for stationary installation in switch cabinets. All instructions referring to the technical data and the permissible conditions where the unit is operated must be followed.

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

- The machine complies with the EMC Directive 89/336/EEC
- The conformity of the end product has been determined in accordance with the Machinery Directive 89/392/EEC (with reference to EN 60204)

Application environment

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

- Use in explosion-proof areas
- Use in environments with harmful substances:
  - Oils
  - Acids
  - Gases
  - Vapors
  - Dust
  - Radiated interference
  - Other harmful environments
- Use subject to mechanical vibration and shock loads in excess of the requirements in EN 50178
- If the inverter performs safety functions which have to guarantee the protection of machinery and people

Waste disposal

Please follow the current instructions: Dispose in accordance with the regulations in force:

- Electronics scrap (printed-circuit boards)
- Plastic (housing)
- Sheet metal
- Copper

2 Safety Notes

Installation and startup

- **Never install damaged products or take them into operation.** Please submit a complaint to the transport company immediately in the event of damage.
- **Installation, startup and service work** on the unit only by **trained personnel**. The personnel must be trained in the relevant aspects of accident prevention and must comply with the regulations in force (e.g. EN 60204, VBG 4, DIN-VDE 0100/0113/0160).
- Follow the **specific instructions** during **installation** and **startup** of the motor and the brake!

- Make sure that **preventive measures** and **protection devices** correspond to the **applicable regulations** (e.g. EN 60204 or EN 50178).

  Grounding the unit is a necessary protective measure.

  Overcurrent protection devices are a necessary protective measure.
- **The unit meets all requirements for reliable isolation** of power and electronics connections in accordance with EN 50178. **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**. To do this, you can connect binary inputs DI01 through DI03 to GND.
- Connection to the frequency inverter output is only permitted in size 0S, 0M and 0L when the output stage is inhibited.

Operation and servicing

- **Disconnect the unit from the supply system** prior to **removing the protective cover**. **Dangerous voltages** may still be present for up to **10 minutes after mains disconnection**.

- The unit has **IP 00** enclosure with the **protective cover removed**. **Dangerous voltages** are present at all subassemblies except for the control electronics. Keep the unit closed during operation.
- **Dangerous voltages** are present at the **output terminals** and the **cables and motor terminals connected to them when the unit is switched on**. Dangerous voltages may also be present when the unit is inhibited and the motor at a standstill.
- The unit is **not** necessarily **deenergized** when the **LEDs and the 7-segment display are off**.

- **Safety functions inside the unit** or a **mechanical blockage** may cause the **motor to stop**. The **removal of the source of the malfunction** or a **reset** can result in an **automatic restart of the drive**. If, for safety reasons, this is **not permissible** for the driven machine, **disconnect the unit from the supply system** before correcting the fault.

3 Unit Structure

3.1 Unit design

Size 0S, 0M, 0L

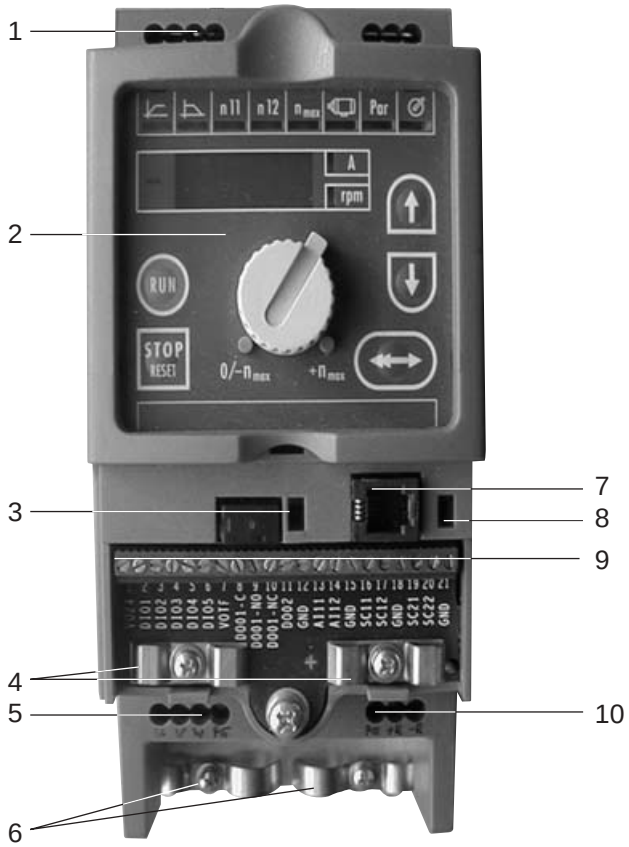


Figure 1: MOVITRAC® 07 unit structure, sizes 0S, 0M, 0L

1. X1: Mains connection 3-phase: L1 / L2 / L3 / PE or 1-phase: L/N/PE
2. Operating panel
3. DIP switch S11 changeover U-signal / I-signal
4. Electronics shield clamp
5. X2: Motor connection U / V / W / PE
6. Power shield clamp
7. X11: RS-485 connection (only for service purposes)
8. DIP switch S12 for system bus terminating resistor
9. X10: Electronics terminal strip
10. X3: Braking resistor connection PE / R+ / R-

Size 1, 2S, 2

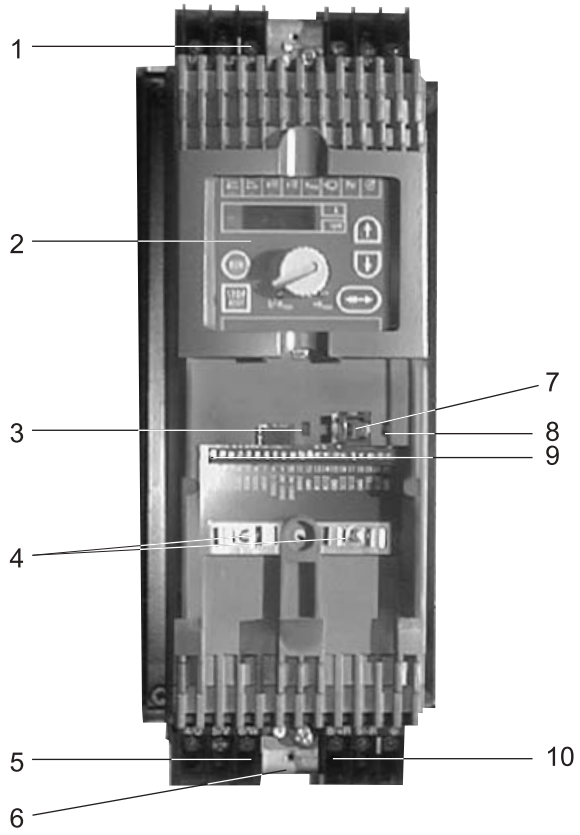


Figure 2: MOVITRAC® 07 unit structure, sizes 1, 2S, 2

1. X1: Mains connection 3-phase: L1 / L2 / L3 / PE screw
2. Operating panel
3. DIP switch S11 changeover U-signal / I-signal
4. Electronics shield clamp
5. X2: Motor connection U / V / W / PE screw
6. Space for power shield clamp
7. X11: RS-485 connection (only for service purposes)
8. DIP switch S12 for system bus terminating resistor
9. X10: Electronics terminal strip
10. X3: Braking resistor connection R+ / R– / PE

Size 3

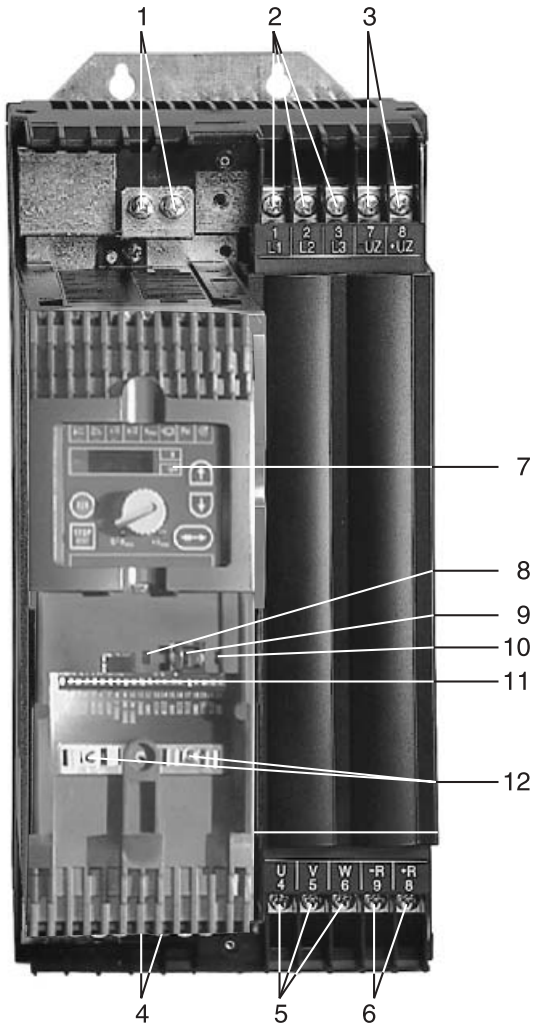


Figure 3: MOVITRAC® 07 unit structure, size 3

1. PE connections
2. X1: Mains connection 3-phase: L1 (1) / L2 (2) / L3 (3)
3. X4: DC link circuit connection (not used)
4. PE connections (not visible)
5. X2: Motor connection U (4) / V (5) / W (6)
6. X3: Braking resistor connection R+ (8) / R– (9)
7. Operating panel
8. DIP switch S12 for system bus terminating resistor
9. X11: RS-485 connection (only for service purposes)
10. DIP switch S11 changeover U-signal / I-signal
11. X10: Electronics terminal strip
12. Electronics shield clamp

Size 4

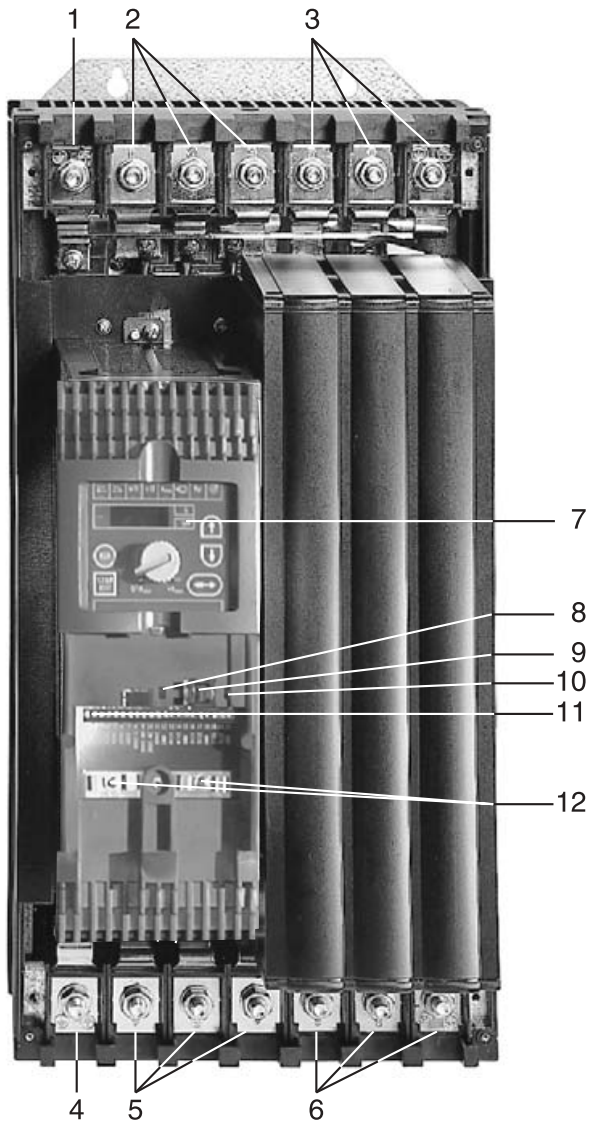


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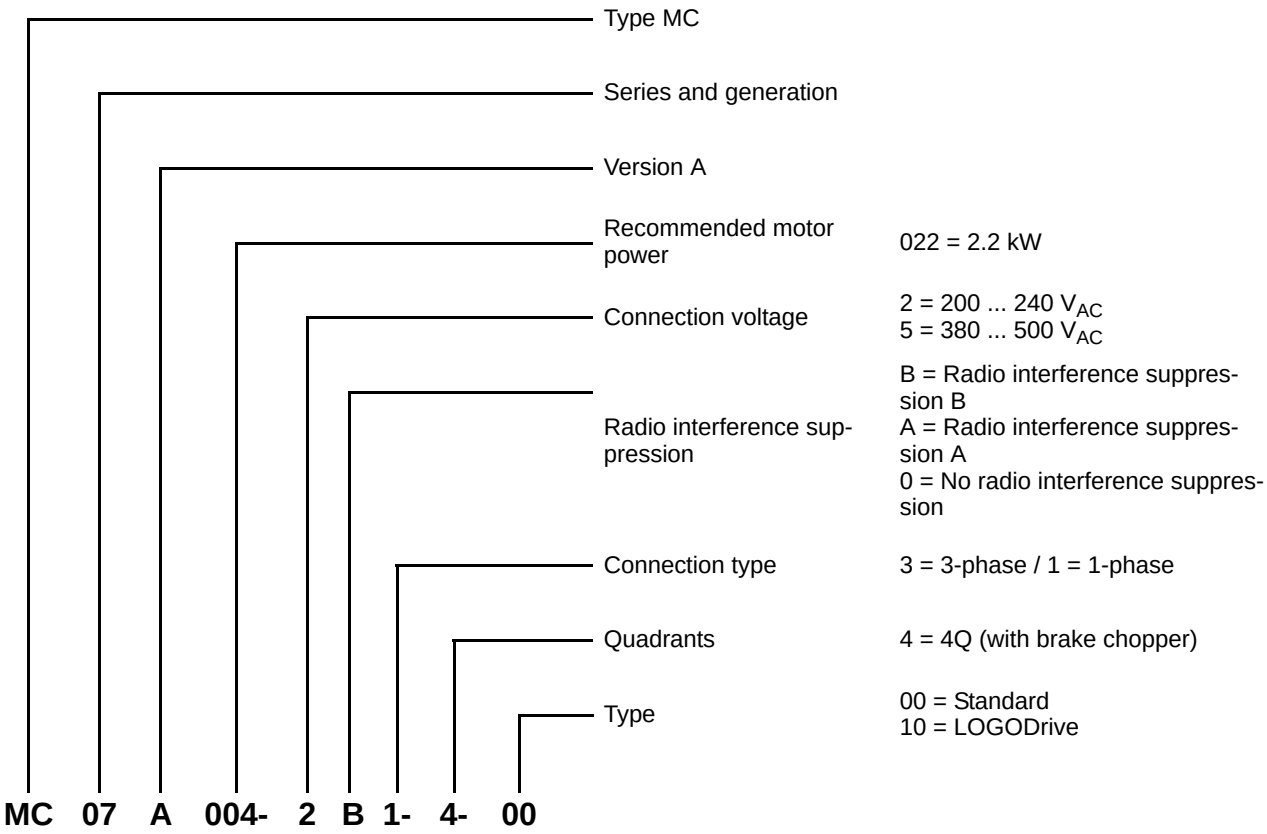
Figure 4: MOVITRAC® 07 unit structure, size 4

1. X2: PE connection
2. X1: Mains connection 3-phase: L1 (1) / L2 (2) / L3 (3)
3. X4: DC link circuit connection (not used)
4. X2: PE connection
5. X2: Motor connection U (4) / V (5) / W (6)
6. X3: Braking resistor connection R+ (8) / R– (9) and PE connection
7. Operating panel
8. DIP switch S12 for system bus terminating resistor
9. X11: RS-485 connection (only for service purposes)
10. DIP switch S11 changeover U-signal / I-signal
11. X10: Electronics terminal strip
12. Electronics shield clamp

3.2 Unit designation and scope of delivery

Sample unit designation



Sample nameplate

02940FXX

Figure 5: Sample nameplate

Scope of delivery loose items

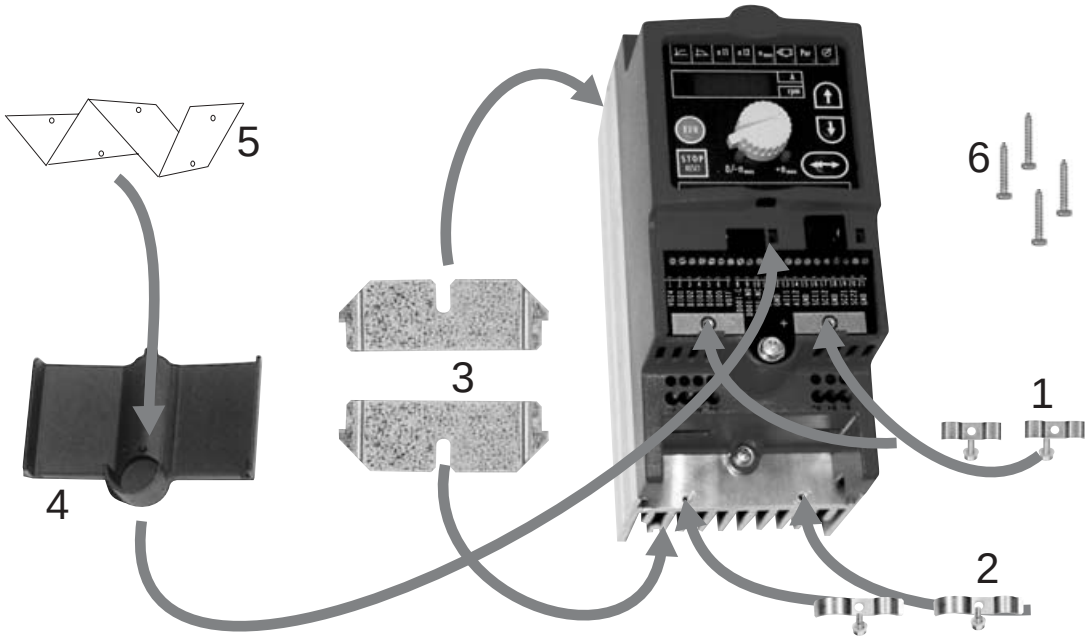


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Figure 6: Scope of delivery, included loose size 0

Scope of delivery, included loose for size				
0	**1**	**2**	**3**	**4**
• Shield clamps for electronics cables (2 clamps with one screw each) [1] • Terminal cover [4] • Information label installed on terminal cover [5]				
• Shield clamps for motor and brake resistor cables [2] • Mounting feet [3] • Retaining screws for optional braking resistor [6]	• Power shield clamp with retaining screws		–	• Touch guard with retaining screws

4 Installation

4.1 Installation instructions

It is essential to comply with the safety notes during installation!

Tightening torques

- Only use **genuine connection elements**. Note the **permitted tightening torques** of MOVITRAC® 07 power terminals.
  - Size 0S/M/L → 0.5 Nm (4.4 lb.in)
  - Size 1 → 0.6 Nm (5.3 lb.in)
  - Size 2S/2 → 1.5 Nm (13.3 lb.in)
  - Size 3 → 3.5 Nm (31 lb.in)
  - Size 4 → 14 Nm (124 lb.in)

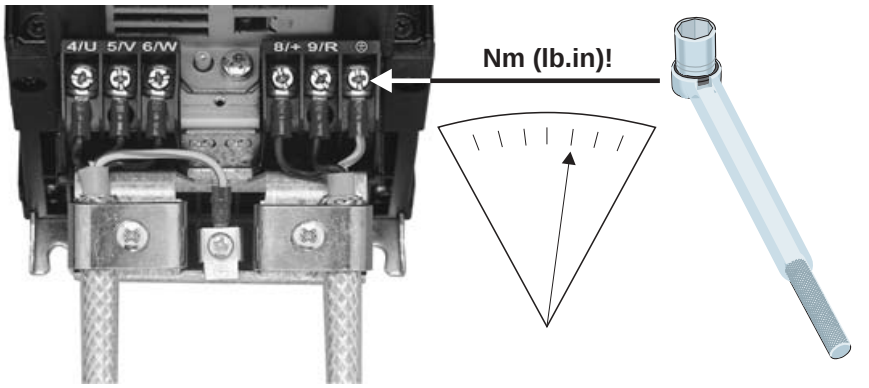

Figure 7: Note the tightening torques

Recommended tools

- Use a screwdriver with a 2.5 mm wide blade for connecting the electronics terminal strip X10.

Conductor end sleeves

- The terminals are provided for installation without conductor end sleeves.

Minimum clearance and mounting position

- Leave **100 mm (4 in) clearance at the top and bottom** for optimum cooling. No lateral clearance required; the units can be lined up side-by-side. Make sure that the circulation of air is not disrupted by cables or other installation materials. Prevent the heated exhaust air from other units from blowing onto this unit. With sizes 4 and 5, do not install any components which are sensitive to high temperatures within 300 mm (11.81 in) of the top of the unit. Only install the units **vertically**. You must not install them horizontally, tilted or upside down.

Line choke

- When **more than four 3-phase units** or **more than one 1-phase unit** are connected to a **supply system contactor** designed for the total current: **Insert a** line choke in the circuit to limit the inrush current.

Separate cable ducts

- Route power cables and electronics cables in separate cable ducts.

Input fuses and earth-leakage circuit breakers

- Install **input fuses at the start of the supply system lead** after the supply bus junction. Use type D, DO, NH fuses or power circuit breakers.

  Using an **earth-leakage circuit breaker as the sole protection device is not permitted**. **Earth-leakage currents > 3.5 mA** can arise during normal operation of the inverter.

PE input connection

- Connect the PE conductor according to the regulations of the country in question.

  Earth-leakage currents > 3.5 mA can arise during normal operation of the inverter.

IT systems

- SEW recommends using **earth-leakage monitors with a pulse code measuring process in voltage supply systems with a non-earthed star point (IT systems)**. This avoids mis-tripping of the earth-leakage monitor due to the earth capacitance of the inverter.

Contactor

- Only use contactors in utilization category AC-3 (IEC 158-1).

Cross sections

- Supply system lead: **Cross section according to nominal input current** I_{system} at rated load

  Motor lead: **Cross section according to output rated current** I_N

  Electronics cables: Maximum 1.5 mm^2 (AWG16) without conductor end sleeves

  Maximum 1.0 mm^2 (AWG17) with conductor end sleeves

Line lengths for single drives

The line lengths for size 0 are independent of the PWM frequency. The motor leads for sizes 1 through 4 depend on the frequency. The permitted motor cable lengths are listed in Sec. "Project Planning" of the MOVITRAC® 07 System Manual.

Unit output

- Only connect an **ohmic/inductive load (motor)**; do not connect a capacitive load!

Braking resistor connection

- Shorten the cables to the required length.

Binary inputs / binary outputs

- **Binary outputs** are **short-circuit proof** and **interference-voltage-proof** up to 35 V. They can suffer irreparable damage from higher external voltages!

Interference emission

- Use shielded motor cables or HD output chokes for EMC-compliant installation. This EMC-compliant installation will then comply with EN 55011, class B limit.

Shielding and earthing

- Shield the control cables.
- Connect the shield by the shortest possible route and make sure it is earthed over a wide area.
- Provide high frequency compatible earthing for MOVITRAC® 07 and all additional units (wide area metal-on-metal contact between the heat sink and ground, e.g. unpainted switch cabinet mounting panel).

Line filter

MOVITRAC® 07 frequency inverters are equipped with an line filter as standard. They comply with the following limit value class to EN 55011 on the line side without further measures:

- **B**: 1-phase connection
- **A**: 3-phase connection
  - 230 V: up to 7.5 kW
  - 400/500 V: up to 11 kW

No EMC limits are specified for interference emission in voltage supply systems without an earthed star point (IT systems). The effectiveness of line filters is severely limited.

Flat-type braking resistor BW for size 0

Push the braking resistor in the back of the heat sink. Install the braking resistor in the heat sink with the four screws provided.

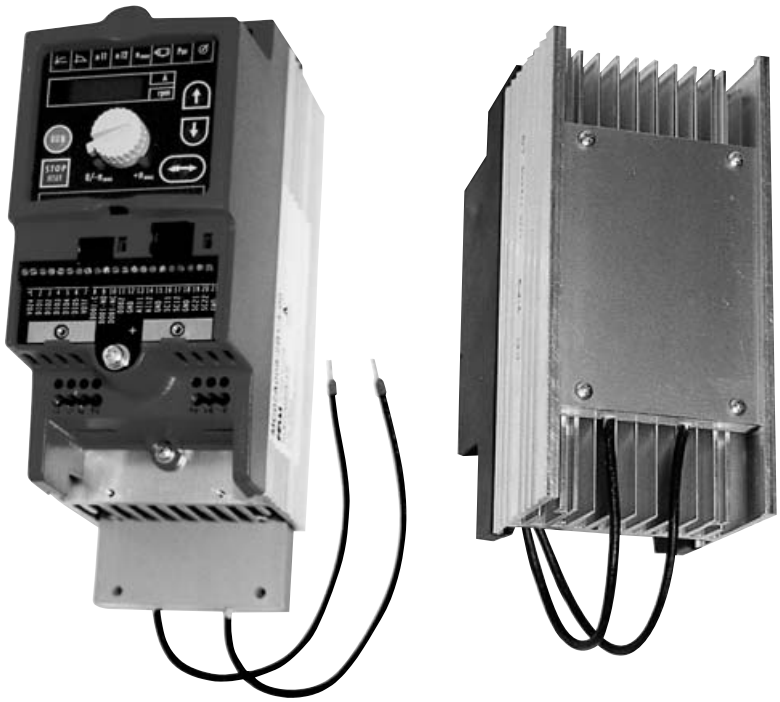

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Figure 8: Installing the braking resistor BW

HD output choke

- Install the output choke close to MOVITRAC® 07 **beyond the minimum clearance**.
- Always route all three phases (**not the PE!**) together through the output choke.
- If the cable is shielded, the shield is **not** allowed to be routed through the output choke.

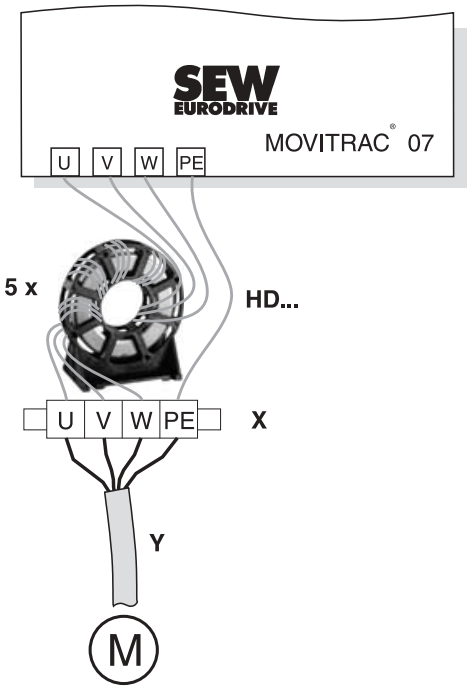


Figure 9: Connecting HD output chokes

In the case of the **HD** output choke, the cable must be wrapped around the choke **5 times**.

4.2 UL compliant installation

Please note the following points for UL compliant installation:

- Only use copper cables with the following temperature ranges as connection leads:
  - For MOVITRAC® 07 ... Temperature range 60/75 °C.
- Necessary tightening torques of MOVITRAC® 07 power terminals: See installation notes.
- The inverters are only allowed to be operated on supply systems with a maximum phase-to-earth voltage of 300 V_{AC}.
- The inverter is only allowed to be operated on IT systems if: The phase-to-earth voltage of 300 V_{AC} cannot be exceeded either during operation or in case of a fault.
- The MOVITRAC® 07 frequency inverter is only allowed to be operated on supply systems which can supply maximum values in accordance with the following table. The performance data of the fuses must not exceed the values in the following table.

Maximum values / fuses

230 V units

MOVITRAC® 07	Max. supply current	Max. supply voltage	Fuses
004/005/008/011/015/022	5000 A_{AC}	240 V_{AC}	35 A / 250 V
037	5000 A_{AC}	240 V_{AC}	30 A / 250 V
055/075	5000 A_{AC}	240 V_{AC}	30 A / 250 V
110	5000 A_{AC}	240 V_{AC}	175 A / 250 V
150	5000 A_{AC}	240 V_{AC}	225 A / 250 V
220/300	10000 A_{AC}	240 V_{AC}	350 A / 250 V

400/500 V units

MOVITRAC® 07	Max. supply current	Max. supply voltage	Fuses
005/008/011	5000 A_{AC}	500 V_{AC}	15 A / 600 V
015/022/030/040	5000 A_{AC}	500 V_{AC}	30 A / 600 V
055/075	10000 A_{AC}	500 V_{AC}	30 A / 600 V
110	10000 A_{AC}	500 V_{AC}	30 A / 600 V
150/220	5000 A_{AC}	500 V_{AC}	175 A / 600 V
300	5000 A_{AC}	500 V_{AC}	225 A / 600 V

4.3 Power shield clamp

For sizes 1 / 2S

SEW-EURODRIVE supplies a power shield clamp as standard with MOVITRAC® 07 size 1 / 2S. Install this power shield clamp together with the retaining screws of the unit.

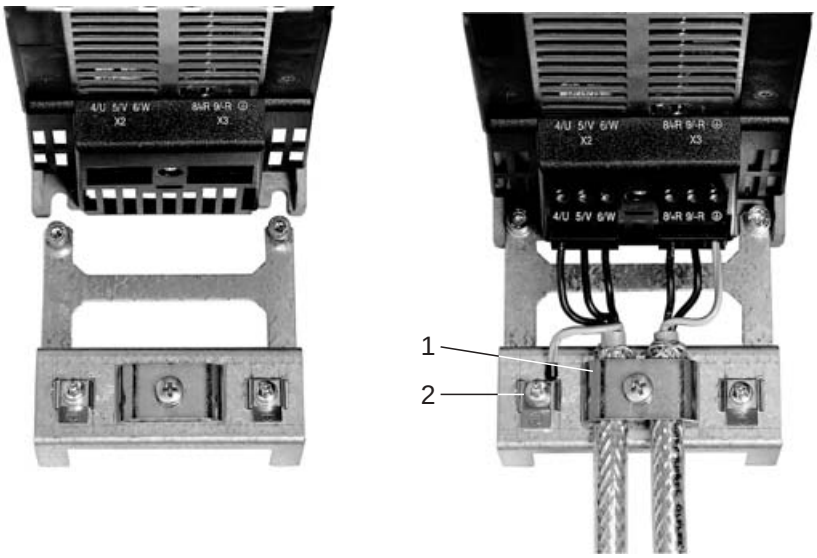


Figure 10: Power shield clamp for MOVITRAC® 07 size 1

1. Shield clamp
2. PE connection (y)

For size 2

SEW-EURODRIVE supplies a power shield clamp with two retaining screws as standard with MOVITRAC® 07 size 2. Install this power shield clamp together with the two retaining screws on X6.

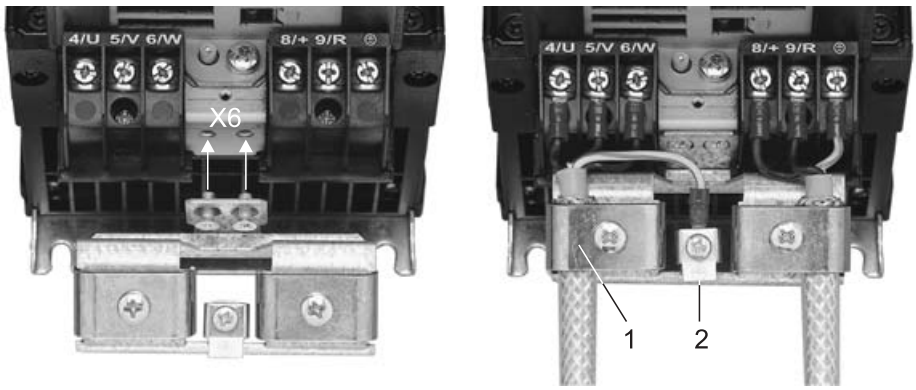


Figure 11: Power shield clamp for MOVITRAC® 07 size 2

1. Shield clamp
2. PE connection (y)

Power shield clamps provide you with a very convenient way of installing the shield for the motor and brake leads. Install the shield and PE conductor as shown in the figures.

4.4 Touch guard

SEW-EURODRIVE supplies two touch guards with eight retaining screws as standard with MOVITRAC® 07 size 4. Install the touch guard on the two hood covers for the power section terminals.

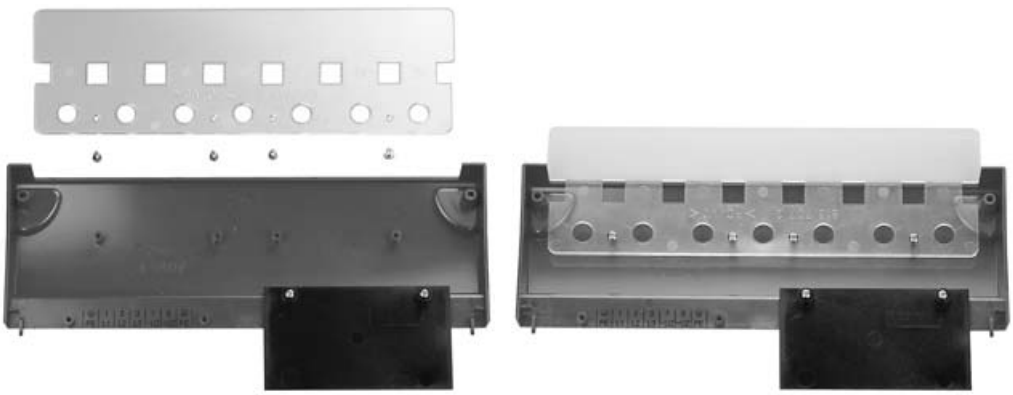


Figure 12: Touch guard for MOVITRAC® 07 size 4

When the touch guard is installed, MOVITRAC® 07 size 4 has enclosure IP10. The units have IP00 without touch guard.

4.5 Wiring diagram 230 V 0.37 ... 2.2 kW / 400 V 0.55 ... 4.0 kW

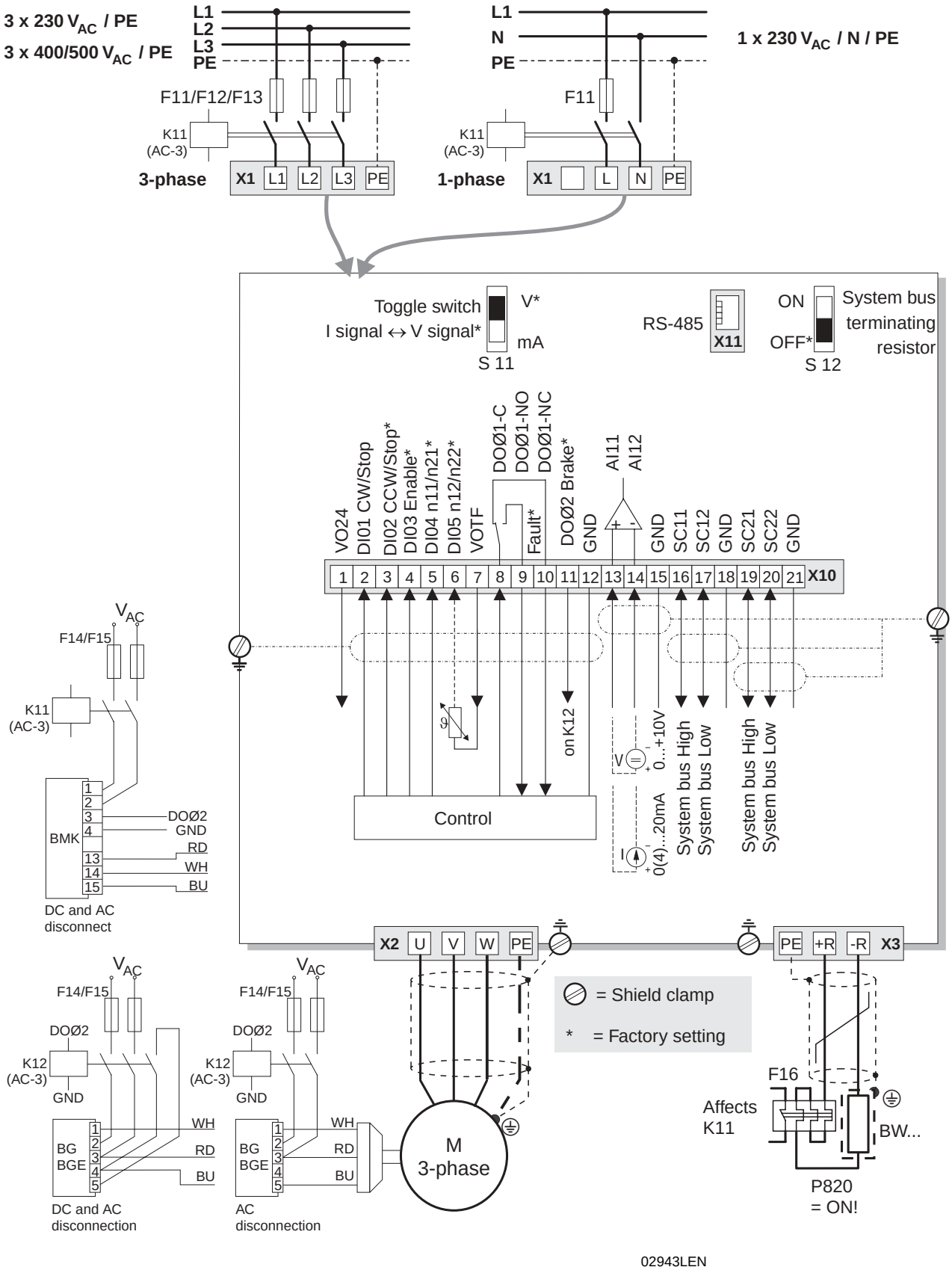


Figure 13: Wiring diagram for size 0

4.6 Wiring diagram 230 V 3.7 ... 30 kW / 400 V 5.5 ... 30 kW

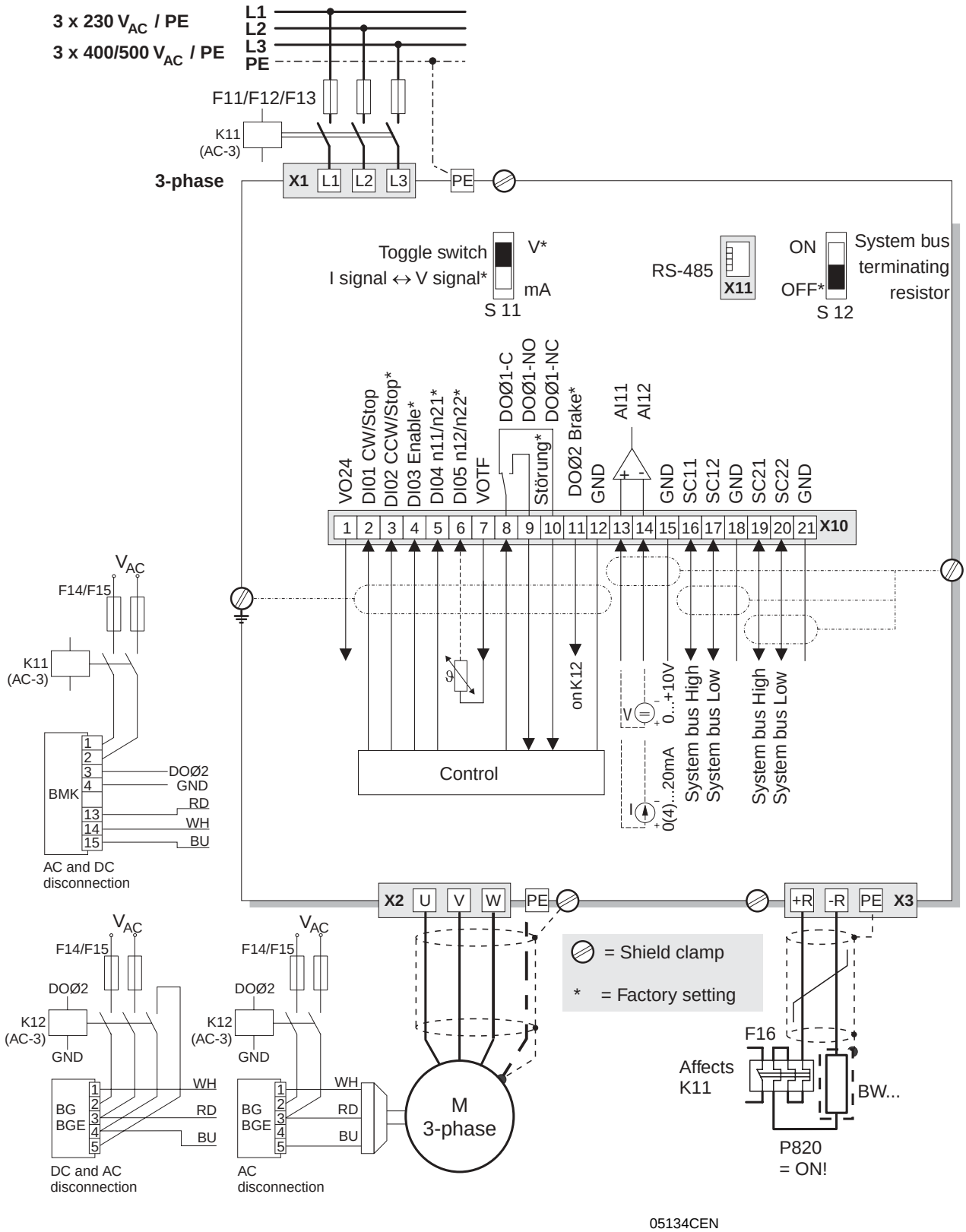


Figure 14: Wiring diagram for sizes 1 ... 4

Connection of the brake rectifier

A separate supply system lead is required for connecting the brake rectifier; supply from the motor voltage is not permitted!

Only use contactors in utilization category AC-3 (IEC 158-1) for K11 and K12.

Always switch off the brake on the DC and AC sides under the following conditions:

- All hoist applications
- Drives which require a rapid brake reaction time.

When the brake rectifier is installed in the switch cabinet: Route the connecting leads between the brake rectifier and the brake separately from other power cables. Routing together with other cables is only permitted if the other cables are shielded.

Note the corresponding connection regulations for brakes without BG/BGE or BME. Please refer to the publication "Drive Engineering - Practical Implementation, Vol. 4" for detailed information about SEW brakes.

Functional description of the terminals

Terminal		Function	
X1	L1/L2/L3/PE L/N/PE	Mains connection	
X2	U/V/W/PE	Motor connection	
X3	PE/+R/-R	Braking resistor connection	
X10:			
1	VO24	Auxiliary supply output +24 V (max. 50 mA)	
2	DI01	Binary input 1, with fixed assignment CW/STOP	
3	DI02	Binary input 2, with factory setting CCW/STOP	
4	DI03	Binary input 3, with factory setting Enable	
5	DI04	Binary input 4, with factory setting n11/n21	
6	DI05	Binary input 5, with factory setting n12/n22 (**TF** can **only be connected to DI05**)	
7	VOTF	Voltage supply for TF (PTC thermistor)	
8	DO01-C	Binary output 1, factory setting "/Fault"	
9	DO01-NO	Binary output 1, NO contact	
10	DO01-NC	Binary output 1, NC contact	
11	DO02	Binary output 2, factory setting "Brake released" (I_{max} = 150 mA)	
12	GND	Reference potential	
13 14	AI11 AI12	Analog input 0 ... 10 V / 0(4) ... 20 mA	
15	GND	Reference potential	
16	SC11	System bus high, incoming	
17	SC12	System bus low, incoming	
18	GND	Reference potential	
19	SC21	System bus high, outgoing	SC21 and SC22 are deactivated when S12 = ON. This is necessary in units at the end of the bus.
20	SC22	System bus low, outgoing	
21	GND	Reference potential	
X11	RS-485	Service interface for UWS21A on PC or parameter module UBP11A	

4.7 System bus (SBus) installation

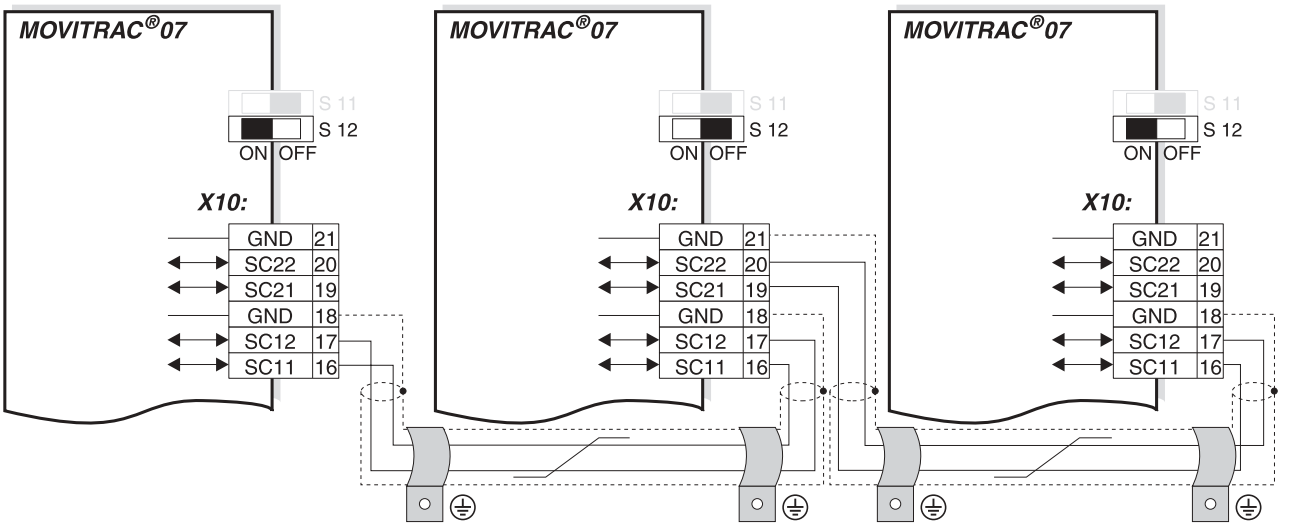


Figure 15: MOVITRAC® 07 system bus connection

GND = System bus reference
SC22 = System bus low
SC21 = System bus high
SC12 = System bus low
SC11 = System bus high
S12 = System bus terminating resistor

SBus MOVITRAC 07: Connect the terminating equipment to SC11/SC12. SC21/SC22 are only active when S12 = OFF.

5 Startup

Using the IN/OUT key : Press the key once to go further down into the menu structure (selecting functions). Press twice or use one long key press to change to higher levels in the menu structure.

5.1 General startup instructions

It is essential to adhere to the safety notes during startup!

Prerequisite

Correct project planning of the drive is the prerequisite for successful startup.

MOVITRAC® 07 frequency inverters are factory set to be taken into operation with the SEW motor which is adapted to the correct power level (4-pole, 50/60 Hz).

You can connect the motor and start the drive immediately.

The startup functions described in this section are used for setting the inverter so it is optimally adapted to the motor which is actually connected and to the given boundary conditions.

5.2 Preliminary work and resources

- Check the installation (Installation chapter)).
- Connect the supply system and the motor. **Do not connect any signal terminals!**
- Switch on the supply system.
- Display shows `Stop`.
- Program the signal terminals.
- Set the parameters correctly (e.g. factory setting).
- Check the terminal assignment which has been set (→ P60_ (MOVITOOLS) / P60- (display)).
- Switch off the supply system.
- Connect the signal terminals.
- Switch on the supply system.

STOP

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

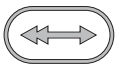
5.3 Integrated operating panel

Operation

The following basic principle applies: Press the  key once to start editing. Double-click the  key to exit edit mode.

Functions of the operating panel

The UP, DOWN and IN/OUT buttons are used for navigating through the menus. The RUN and STOP/RESET buttons are used for controlling the drive. The setpoint potentiometer is used for selecting setpoints.

	"UP" for scrolling through the symbols and editing parameters.
	"IN/OUT" for activating and deactivating the symbols or parameter menus
	"DOWN" for scrolling through the symbols and editing parameters.
	You can start the drive with "RUN".
	"STOP/RESET" is used for resetting faults and for stopping the drive.

Stopping the drive with the STOP/RESET key is not a safety function. Switching the power off unlocks the inverter again and you can enable the inverter.

5.4 Principles of operation with the integrated operating panel

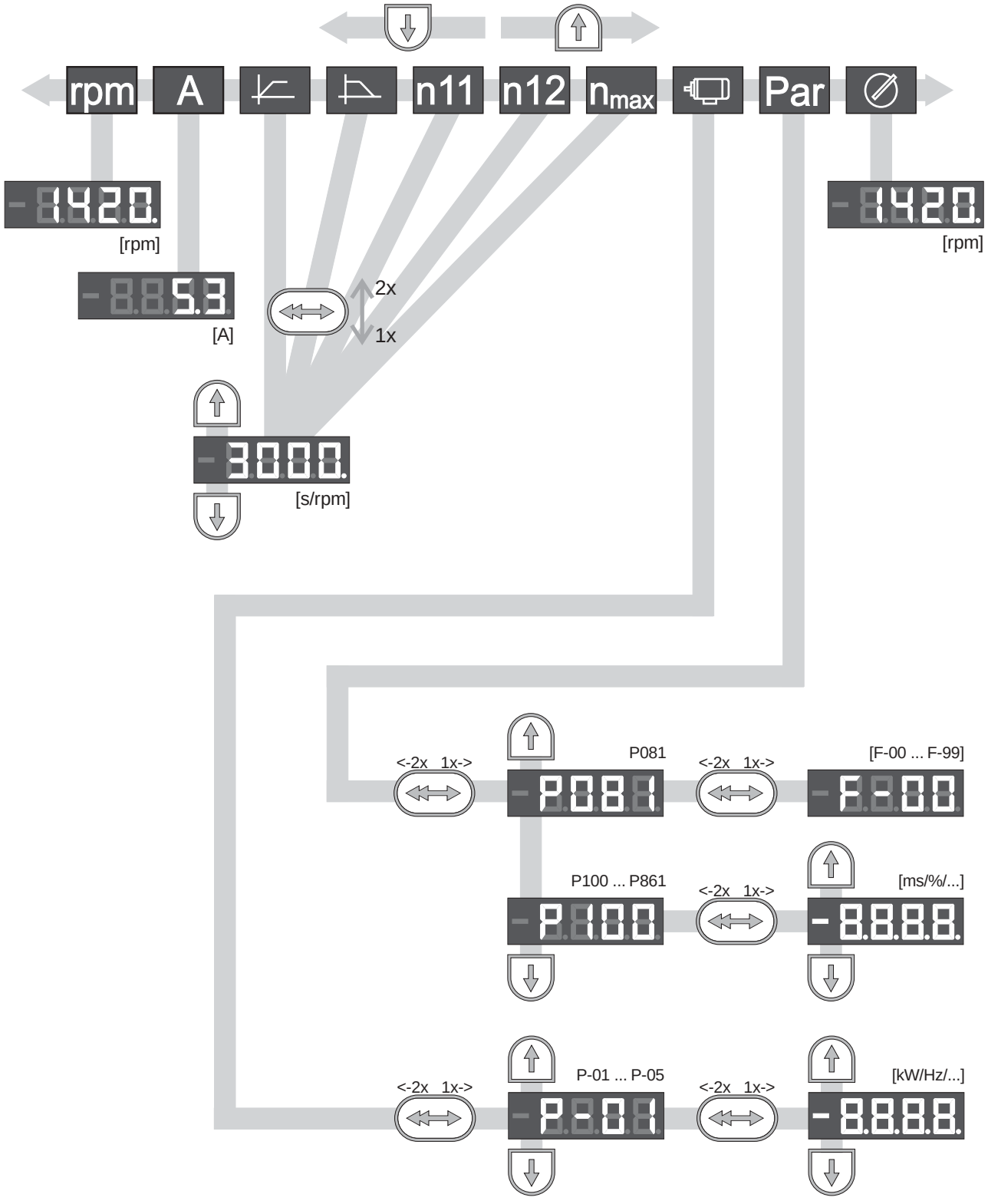


Figure 16: Principles of operation with the integrated operating panel (2x = double-click)

Available symbols

You can select the following symbols using keys ↑ and ↓:

Symbol	Function
rpm	Displays the inverter status or (in "drive enabled" status) the calculated actual speed in [rpm]
A	Displays the apparent output current in [A]
	Sets the accelerating ramp in [s]
	Sets the deceleration ramp in [s]
n_{max}	Sets the maximum speed in [rpm]
n11	Sets fixed setpoint n11 in [rpm]
n12	Sets fixed setpoint n12 in [rpm]
	Motor startup P-01 ... P-05
Par	Sets the inverter parameters
	Activates the manual speed control module of the operating panel

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 7-segment display.

Editing parameters

After selecting the Par symbol (display: `P---`), it is possible to select the required parameter by selecting ⇔ using ↑ and ↓.

Pressing the ⇔ key once causes the display to show the number of the required parameter. Press the ⇔ key again to edit the parameter value. If the LED in the corresponding symbol flashes, this indicates the value can now be altered. The value takes effect when you exit edit mode by pressing the ⇔ key twice or about 1 s following the last key press.

Display

It is possible to select finished combinations for terminal assignment parameters (601 ... 604, 620, 621) on the operating panel using parameters 60- and 62-. If you set a different combination with MOVITOOLS, the display shows `----`.

Status displays

The display shows the status if you select the rpm symbol. The display shows the calculated actual speed if the status is "Drive enabled".

- Drive "Controller inhibit": `dIS` (disable)
- Drive "No enable": `StoP` (Stop)
- Drive "Enabled": `8888` (actual speed)
- Factory settings being reactivated: `SEt` (Set)

Fault indication If a fault occurs, the display changes to the rpm symbol and it shows the flashing fault code, e.g. `F-11` (fault list in Sec. Operation and servicing).

Warnings Some parameters are not allowed to be altered in all operating states. If you try to do so, the following display appears: `r-19` ... `r-32`. The display shows a code corresponding to the particular action, e.g. `r-28` (controller inhibit necessary). See Sec. Operation and servicing for a list of warnings.

5.5 Manual speed control module and external setpoint selection

Manual speed control module of the operating panel (local manual operation): **LED flashes**

External setpoint selection

Control via:

- Terminals
- Serial interface
- Setpoint potentiometer on AI11/AI12

Manual speed control module

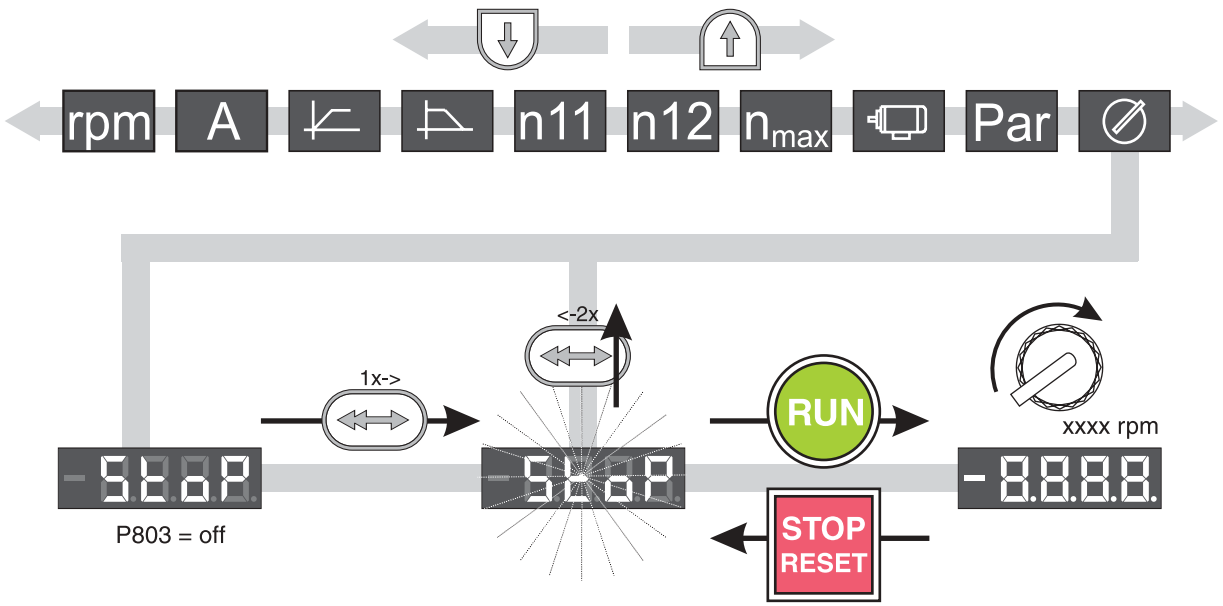


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Figure 17: Manual setpoint adjustment (2x = double-click)

The only relevant parameters in "manual speed control module" operating mode are:

- *P122 Local Potentiometer Mode*
- "RUN" and "STOP/RESET" buttons
- Setpoint potentiometer

LEDs rpm and flash when the manual speed control module is activated.

You can limit the speed by *P301 Minimum speed* and *P302 Maximum speed*.

After a fault, a reset can be performed using the "STOP/RESET" button, the terminal or the interface. "Manual speed control module" operating mode is once again active after the reset. The drive remains stopped.

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

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

External setpoint selection

You can enable the inverter with the "RUN" button and stop it again with the "STOP/RESET" button. You can switch off the function of both buttons using *P760 Locking RUN/STOP keys*.

Setpoint direction of rotation

You can specify the setpoint 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*

Setpoint speed

You can assign the setpoint speed:

- The setpoint potentiometer (if *P121 Addition Setpoint Potentiom.* is set to ON)
- *P100 Setpoint source*
  - Fixed setpoints
  - Fixed setpoints with analog input
  - Process data word from SBus or RS-485 (RS-485 only for service purposes)
  - Motor potentiometer

Enable direction of rotation with RS-485 or SBus

The direction of rotation is determined by the setpoint if you set *P101 Control signal source* **and** *P100 Setpoint source* to RS485 or SBus (RS485 only for service purposes). You must enable the setpoint via SBus or RS-485 using the "CW/STOP" or "CCW/STOP" terminal. **SEW-EURODRIVE recommends giving the enable using the "CW/STOP"** terminal which has a fixed program setting, rather than with the programmable "CCW/STOP" terminal.

"CW/STOP" terminal	"CCW/STOP" terminal	Direction of rotation enable
0	0	Drive inhibited
1	0	CCW and CW (direction of rotation is dependent on the setpoint)
0	1	CCW and CW (direction of rotation is dependent on the setpoint)
1	1	Drive inhibited

The "CW/STOP" and "CCW/STOP" terminals determine the direction of rotation if:

- *P101 Control signal source* is set to RS485 or SBus

  and

- *P100 Setpoint source* is set to
  - UNIPOL/FIX.SETPT
  - MOTOR POT
  - FIX SETP+AI1
  - FIX SETP*AI1
  - FREQUENCY INPUT

STOP/RESET key

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, then you must re-enable it using the RUN key.

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

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

RUN key

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

5.6 Startup with the integrated operating panel

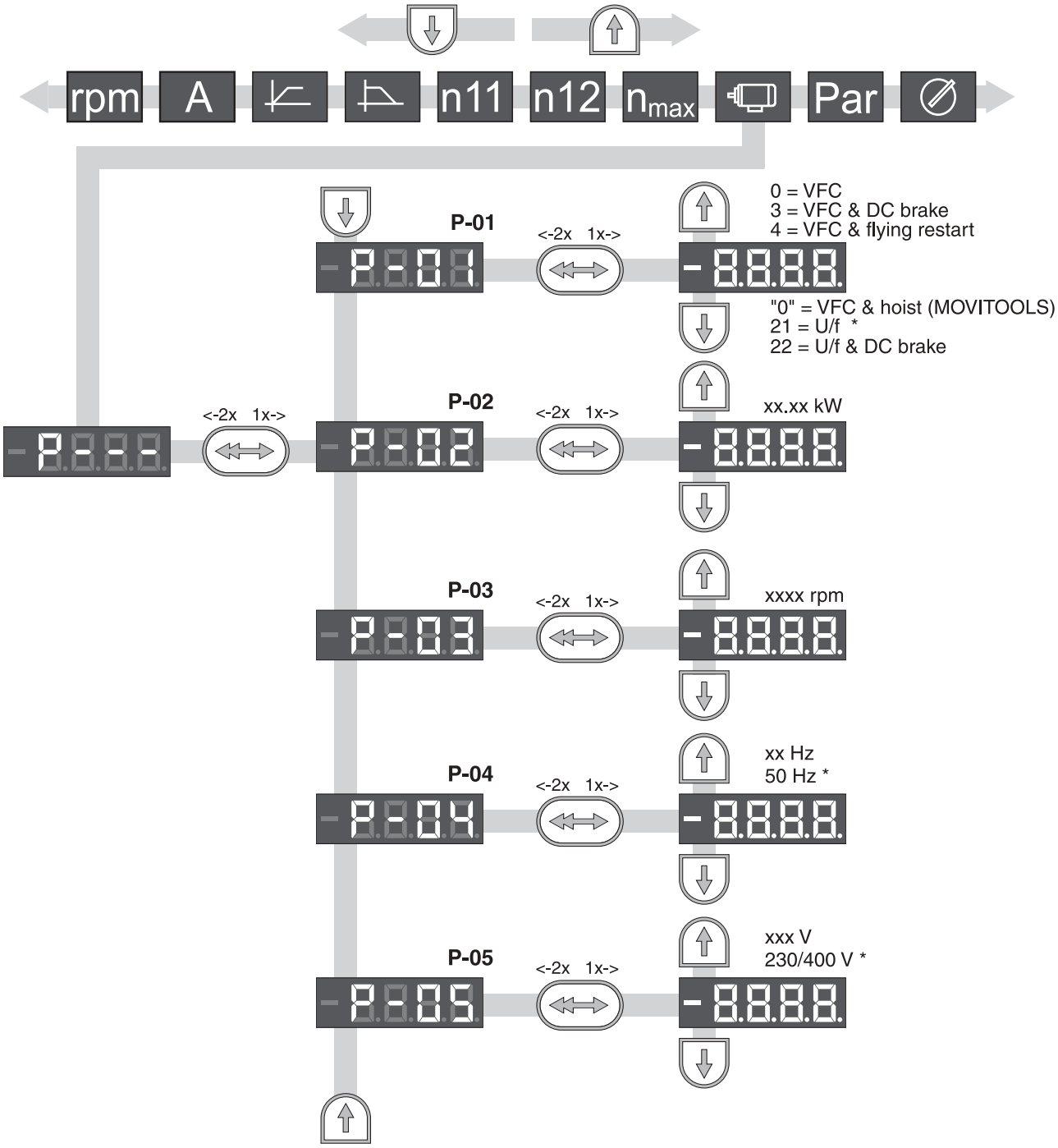

*Figure 18: Startup with the integrated operating panel (2x = double-click / * = factory setting)*

P-01 = Operating mode
P-02 = Rated motor power
P-03 = Rated motor speed
P-04 = Rated motor frequency
P-05 = Rated motor voltage

General information

If you are **not** connecting the motor indicated in the motor selection table: **Enter parameters P-01 to P-05 correctly according to the nameplate** (access via):

No.	Name	Range / factory setting	
P-01	Operating mode	0 3 4 **21** 22	VFC or VFC & HOIST (can only be set in MOVITOOLS) VFC & DC BRAK. VFC & FLYING START **V/f character.** V/f & DC BRAKING
P-02	Rated motor power	0.25 0.37 0.55 ...	[kW] Factory setting: Rated motor power in kW corresponding to the rated inverter power If a smaller or a larger motor is connected (maximum difference one frame size), then a value must be selected which is as close as possible to the rated motor power.
P-03	Rated motor speed	10 ... **Rated motor speed** ... 5500 [rpm]	
P-04	Rated motor frequency	**50** 60	[Hz]
P-05	Rated motor voltage	50 ... 700 [V]	

Startup automatically sets the maximum speed P302 to the transition speed.

Activating startup

Prerequisites:

- Drive "No enable": `Stop` (Stop)

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

VFC

The default operating mode setting is V/f. You must start up the inverter in VFC or VFC & DC BRAK. operating mode for:

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

To do this, during startup you must select the symbol in item `P-01` to choose VFC or VFC & DC BRAK. operating mode. Then you must perform a motor adjustment using *parameter 320 Automatic adjustment*.

5.7 Starting the motor

Analog setpoints

The following table shows which signals must be present on terminals X10:2 ... X10:4 (DIØ1 ... DIØ5) when the "UNIPOL/FIX.SETPT" setpoint is selected (P100), in order to operate the drive with analog setpoints.

Terminal **Function**	**X10:13/14** **Analog input**	**X10:2** **CW/STOP**	**X10:3** **CCW/STOP**	**X10:4** **Enable**
/No enable	X	X	X	0
Enable and stop	X	0	0	1
Clockwise at 50 % n_{max}	5 V	1	0	1
Clockwise n_{max}	10 V	1	0	1
Counterclockwise at 50 % n_{max}	5 V	0	1	1
Counterclockwise n_{max}	10 V	0	1	1

X = Any / 0 = Low / 1 = High

The following travel cycle shows by way of example how you start the drive with the wiring of terminals X10:2 ... X10:6 and the internal fixed setpoints.

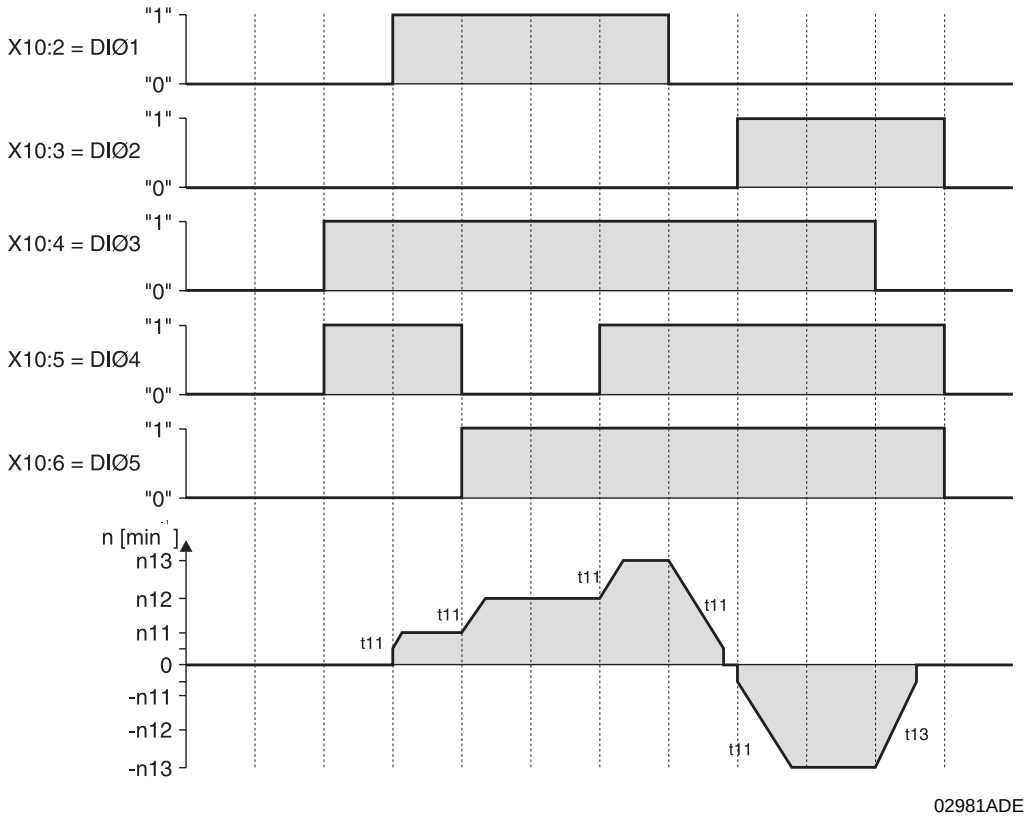

Figure 19: Travel cycle with internal fixed setpoints

X10:2 = CW/STOP
X10:3 = CCW/STOP
X10:4 = Enable/Rapid stop
X10:5 = n11/n21
X10:6 = n12/n22

5.8 Loading a LOGODrive program

- Start MOVITOOLS Manager.
- Connect the MOVITRAC® 07 to a vacant serial port on your PC using the UWS21A interface converter. Select this interface in the PC Interface group.
- Connect the MOVITRAC® 07 to the supply system.
- Click the Update button. The PC then looks for all connected units and displays them in the Connected Inverters list.
- Click the LOGODrive button.
- Load the program you want using File / Open.
- Compile the program with Program / Translate.
- Load the program into the MOVITRAC® 07 using Program / Load.
- Start the program with Program / Start.
- If a program is currently being processed in the inverter, this is indicated on the display by a decimal point after the 4 digits of the display.

5.9 Parameter list

All parameters which can also be displayed and edited using the Par symbol on the operating panel have a • in the "OP" (operating panel) column. If more than one value can be selected, the factory setting is highlighted in **bold**.

No.	OP	Index dec.	Name	Range / factory setting		Value after startup
				Display	MOVITOOLS	
0__			**Display values** (read only)			
00_			**Process values**			
000			Speed (signed)	rpm	[rpm]	
002			Frequency (signed)		[Hz]	
004			Output current (value)		[% I_N]	
005			Active current (signed)		[% I_N]	
008			DC link voltage		[V]	
009			Output current	A	[A]	
01_			**Status displays**			
010			Inverter status	rpm	[Text]	
011			Operational status	rpm	[Text]	
012			Fault status	rpm	[Text]	
014			Heat sink temperature		[°C]	
02_			**Analog setpoint**			
020			Analog input AI1		[V]	
03_			**Binary inputs**			
031			Binary input DI01		CW/STOP (fixed assignment)	
032			Binary input DI02		CCW/STOP (factory setting)	
033			Binary input DI03		ENABLE/RAP.STOP (factory setting)	
034			Binary input DI04		n11/n21 (factory setting)	
035			Binary input DI05		n12/n22 (factory setting)	
036			Binary inputs DI01.. DI05		Binary display	

No.	OP	Index dec.	Name	Range / factory setting		Value after startup
				Display	MOVITOOLS	
05_			**Binary outputs**			
051			Binary output DO01		/FAULT (factory setting)	
052			Binary output DO02		BRAKE RELEASED (factory setting)	
053			Binary outputs DO01, DO02		Binary display	
07_			**Unit data**			
070			Unit type		[Text]	
071			Output rated current		[A]	
076			Firmware basic unit		[Part number and version]	
08_			**Fault memory**			
080	•	8366	Fault t-0	Fault code	Background information for faults which occurred previously.	
09_			**Bus diagnosis**			
090			PD configuration		• 1 PD + PARAMETER • 1 PD • 2 PD + PARAMETER • 2 PD • 3 PD + PARAMETER • 3 PD	
094	•	8455	PO1 setpoint		[hex]	
095	•	8456	PO2 setpoint		[hex]	
096	•	8457	PO3 setpoint		[hex]	
097			PI1 actual value		[hex]	
098			PI2 actual value		[hex]	
099			PI3 actual value		[hex]	
1__			**Setpoints/ramp generators**			
10_			**Setpoint selection**			
100	•	8461	Setpoint source	**1** 2 4 6 7 10 11	**UNIPOL/FIX.SETPT** RS485 MOTOR POT FIX SETP+AI1 FIX SETP*AI1 SBus Frequency input (in preparation)	
101	•	8462	Control signal source	**0** 1 3 4	**TERMINALS** RS485 SBus 3-WIRE-CONTROL	
102	•	8840	Frequency scaling	Setting range 0.1 ... **10** ... 65.00 [kHz]		

No.	OP	Index dec.	Name	Range / factory setting		Value after startup
				Display	MOVITOOLS	
11_			**Analog input 1 (+10 V)**			
110	•	8463	AI1 scaling	0.1 ... **1** ... 10		
112	•	8465	AI1 operation mode	0 **1** 5 6	3000 rpm (0 – 10 V) **N-MAX (0 – 10 V)** N-MAX (0 – 20 mA) N-MAX (4 – 20 mA)	
12_			**Analog input 2 (setpoint potentiometer of the integrated operating panel)**			
121	•	8811	Addition Setpoint Potentiom.	**0** 1 2	**OFF** ON ON EXCEPT FSP	
122	•	8799	Local Potentiom-eter Mode	**0** 1 2	**UNIPOL. CW** UNIPOL. CCW BIPOL.CW+CCW	
13_			**Speed ramps**			
130	•	8807	Ramp t11 UP	0.1 ... **2** ... 2000 [s]		
131	•	8808	Ramp t11 DOWN	0.1 ... **2** ... 2000 [s]		
136	•	8476	Stop ramp t13	0.1 ... **2** ... 20 [s]		
138		8794	Ramp limit	0 **1**	NO **YES**	
15_			**Motorized potentiometer**			
150	•	8809	Ramp t3 UP	0.2 ... **20** ... 50 [s]		
152	•	8488	Save last set-point	**off** on	**OFF** ON	
16_			**Fixed setpoints (set 1)**			
160	•	8489	Internal setpoint n11	n11	0 ... **150** ... 5000 [rpm]	
161	•	8490	Internal setpoint n12	n12	0 ... **750** ... 5000 [rpm]	
162	•	8491	Internal setpoint n13	0 ... **1500** ... 5000 [rpm]		
163	•	8814	Internal setpoint n11 PI-controller	0 ... **3** ... 100 [% I_N]		
164	•	8815	Internal setpoint n12 PI-controller	0 ... **15** ... 100 [% I_N]		
165	•	8816	Internal setpoint n13 PI-controller	0 ... **30** ... 100 [% I_N]		

No.	OP	Index dec.	Name	Range / factory setting		Value after startup
				Display	MOVITOOLS	
17_			**Fixed setpoints (set 2)**			
170	•	8492	Internal setpoint n21	0 ... **150** ... 5000 [rpm]		
171	•	8493	Internal setpoint n22	0 ... **750** ... 5000 [rpm]		
172	•	8494	Internal setpoint n23	0 ... **1500** ... 5000 [rpm]		
173	•	8817	Internal setpoint n21 PI-controller	0 ... **3** ... 100 [% I_N]		
174	•	8818	Internal setpoint n22 PI-controller	0 ... **15** ... 100 [% I_N]		
175	•	8819	Internal setpoint n23 PI-controller	0 ... **30** ... 100 [% I_N]		
2__			**Controller parameters**			
25_			**PI-controller**			
250	•	8800	PI-controller	**0** 1 2	**OFF** ON NORMAL ON INVERTED	
251	•	8801	P-gain	0 ... **1** ... 64		
252	•	8802	Time constant n-control.	0 ... **1** ... 2000 [s]		
253	•	8465	PI actual value mode	**1** 5 6	**0 ... 10 V** 0 ... 20 mA 4 ... 20 mA	
254	•	8463	PI actual value scaling	0.1 ... **1.0** ... 10.0		
255	•	8812	PI sensor offset	**0.0** ... 100.0 [%]		
3__			**Motor parameters**			
30_			**Limits**			
301	•	8516	Minimum speed	0 ... **15** ... 5500 [rpm]		
302	•	8517	Maximum speed	n_{max} 0 ... **1500** ... 5500 [rpm]		
303	•	8518	Current limit	0 ... **150** [% I_N]		
32_			**Motor adjustment**			
320	•	8523	Automatic adjust-ment	off **on**	OFF **ON**	
321	•	8524	Boost	0 ... 100 [%]		
322	•	8525	IxR compensa-tion	0 ... 100 [%]		
323	•	8526	Premagnetizing time	0 ... 2000 [ms]		
324	•	8527	Slip compensa-tion	0 ... 500 [rpm]		
325	•	8834	No-load-damping	**off** on	**OFF** ON	

No.	OP	Index dec.	Name	Range / factory setting		Value after startup
				Display	MOVITOOLS	
4__			**Reference signals**			
40_			**Speed reference signal**			
400	•	8539	Speed reference value	0 ... **750** ... 5000 [rpm]		
401	•	8540	Hysteresis	0 ... **100** ... +500 [rpm]		
402	•	8541	Delay time	0 ... **1** ... 9 [s]		
403	•	8542	Signal = "1" if:	**0** 1	**n < n_{ref}** n > n_{ref}	
45_			**PI controller ref signal**			
450	•	8813	PI actual value reference	**0.0** ... 100.0 [%]		
451	•	8796	Signal = "1" if:	0 **1**	PI actual value < PI reference **PI actual value > PI reference**	
5__			**Monitoring functions**			
50_			**Speed monitoring**			
500	•	8557	Speed monitoring	**0** 3	**OFF** MOT. & REGEN.MODE	
501	•	8558	Delay time	0 ... **1** ... 10 [s]		
6__			**Terminal assignment**			
60_			**Binary inputs**			
60-	•	8803	Binary inputs DI01 has a fixed setting of CW/STOP.	0 **1** 2 3 4 5 6 7 8 -	DI02 / DI03 / DI04 / DI05 CCW/STOP / FIX SETPT SW.O / n11/n21 / n12/n22 **CCW/STOP / ENABLE / n11/n21 / n12/n22** CCW/STOP / ENABLE / MOT. POT UP / MOT. POT DN ENABLE / FIX SETPT SW.O / n11/n21 / n12/n22 CCW/STOP / SETPOINT HOLD / n11/n21 / n12/n22 CCW/STOP / ENABLE / EXT. FAULT / ERR. RESET CCW/STOP / ENABLE / FAULT RESET / TF RESP. CCW/STOP / EXT. FAULT / n11/n21 / n12/n22 CCW/STOP / ENABLE / n11/n21 / CTRL.INHIBIT (Deviating combination set with MOVITOOLS)	
601		8336	Binary input DI02		NO FUNCTION ENABLE /STOP CW/STOP CCW/STOP n11/n21 n12/n22 FIXED SETP. SELECT MOTOR POT UP MOTOR POT DOWN /EXT. FAULT FAULT RESET SETPOINT HOLD TF RESPONSE (only with DI05) CONTROL.INHIBIT	
602		8337	Binary input DI03			
603		8338	Binary input DI04			
604		8339	Binary input DI05			

No.	OP	Index dec.	Name	Range / factory setting		Value after startup
				Display	MOVITOOLS	
62_			**Binary outputs**			
62-	•	8804	Binary outputs	 **0** 1 2 3 4 5 6 7 8 9 -	DO01 DO02 **/FAULT** **BRAKE RELEASED** READY BRAKE RELEASED SPEED REFERENCE BRAKE RELEASED SP/ACT.VAL.COMP. BRAKE RELEASED /FAULT SPEED REFERENCE /FAULT SP/ACT.VAL.COMP. /FAULT READY /FAULT ROT. FIELD ON /FAULT PI ACT.VALUE REF PI ACT.VALUE REF BRAKE RELEASED (Deviating combination set with MOVITOOLS)	
620		8350	Binary output DO01		NO FUNCTION /FAULT READY OUTP. STAGE ON ROT. FIELD ON BRAKE RELEASED SPEED REFERENCE SP/ACT.VAL.COMP. PI ACT.VALUE REF.	
621		8351	Binary output DO02			
7__			**Control functions**			
70_			**Operating modes**			
700		8574	Operating mode (setting on the operating panel with , P-01).	0 3 4 "0" **21** 22	VFC 1 VFC 1 & DC BRAK. VFC 1 &FLY.START VFC 1 & HOIST (only with MOVITOOLS) **V/f character.** V/f & DC BRAKING	
71_			**Standstill current function**			
710	•	8576	Standstill current function	**0** ... 50 % I_{Mot}		
72_			**Setpoint stop function**			
720	•	8578	Setpoint stop function	**off** on	**OFF** ON	
721	•	8579	Stop setpoint	0 ... **30** ... 500 [rpm]		
722	•	8580	Start offset	0 ... **30** ... 500 [rpm]		
73_			Brake function			
736	•	8828	Braking time	0.0 ... **0.1** ... 2 [s]		
76_			**Manual operation**			
760	•	8798	Locking RUN/STOP keys	**no** yes	**NO** YES	

No.	OP	Index dec.	Name	Range / factory setting		Value after startup
				Display	MOVITOOLS	
8__			**Unit functions**			
80_			**Setup**			
802	•	8594	Factory setting	yes **no**	FACTORY SETTING **NO** DELIVERY CONDITION	
803	•	8595	Parameter lock	**off** on	**OFF** ON	
804		8596	Reset statistic data		**NO** FAULT MEMORY	
81_			**Serial communication**			
810	•	8597	RS485 address	**0** ... 99		
811		8598	RS-485 group address		**100** ... 199	
812		8599	RS485 timeout delay		**0** ... 650 [s]	
813	•	8600	SBus address	**0** ... 63		
814		8601	SBus group address		**0** ... 63	
815		8602	SBus timeout delay		**0** ... 650 [s]	
816	•	8603	SBus baud rate	0 1 **2** 3	125 kbaud 250 kbaud **500 kbaud** 1000 kbaud	
82_			**Brake operation**			
820	•	8607	4-quadrant operation	off **on**	OFF **ON**	
83_			**Fault responses**			
830	•	8609	Response EXT. FAULT	2 **4**	IMM. STOP/FAULT **RAPID STOP/FAULT**	
84_			**Reset response**			
840		8617	Manual reset		YES **NO**	
86_			**Modulation**			
860	•	8620	PWM frequency	**0** 1 2 3	**4 kHz** 8 kHz 12 kHz 16 kHz	
862	•	8751	PWM fix	yes **no**	YES **NO**	

No.	OP	Index dec.	Name	Range / factory setting		Value after startup
				Display	MOVITOOLS	
87_			**Fieldbus parameterization**			
870		8304	Setpoint description PO1		**NO FUNCTION** (factory setting P872) **SPEED** (factory setting P871) MAX. SPEED RAMP **CTRL. WORD 1** (factory setting P870) SPEED [%] PI-CONTROLLER SETPOINT	
871		8305	Setpoint description PO			
872		8306	Setpoint description PO3			
873		8307	Actual value description PI2		NO FUNCTION **SPEED** (factory setting P874) **OUTP.CURRENT** (factory setting P875) ACTIVE CURRENT **STATUS WORD1** (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**	
9__			IPOS/LOGODRIVE parameters			
93_			IPOS/LOGODRIVE special functions			
931	•		Task 1/2	**off** on		
932			Task 2	**off** on		

6 Operation and Service

6.1 Fault information

Fault memory

The inverter stores the fault message in fault memory P080. The inverter does not save a new fault until the fault message has been acknowledged. The local operating panel shows the fault which occurred most recently. Whenever double faults 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 timout.

The inverter saves the following information when the malfunction occurs:

- Fault 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

Switch-off responses

There are three switch-off responses depending on the fault.

Inhibit means: Output stage inhibited, reset required.

Immediate switch-off

The unit can no longer brake the drive. In the event of a fault, the output stage goes to high-resistance and the brake is applied immediately.

Rapid stop with inhibit

The inverter brakes the drive using stop ramp t13. The brake is applied when the *minimum speed P301* is reached. **The output stage goes to high-resistance.** If *P820 4-quadrant operation = OFF*, deceleration is not with a ramp but instead by means of direct current braking.

Rapid stop without inhibit

The inverter brakes the drive using stop ramp t13. The brake is applied when the *minimum speed P301* is reached. If P820 *4-quadrant operation = OFF*, deceleration is not with a ramp but instead by means of direct current braking.

Reset

A fault message can be acknowledged by:

- Switching the supply system off and on again. Recommendation: Observe a minimum switch-off time of 10 s for the supply system contactor.
- Reset via input terminals, i.e. via an appropriately assigned binary input (DIØ2...DIØ5).
- Manual reset in MOVITOOLS (*P840 Manual reset = YES* or the Reset button in the Status window).
- Manual reset on the operating panel (STOP/RESET button).

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

The STOP/RESET key can be used for performing a reset after a fault has occurred with a programmed fault response. The drive is inhibited after a reset. You must enable the drive with the RUN key.

Current limit

The speed display starts to flash when the current limit is reached.

6.2 List of errors (F-00 ... F-97)

No.	Name	Response	Possible cause	Action
00	No error			
01	Over-current	Immediate switch-off	• Short circuit on output • Output switching • Motor too large • Defective output stage • Ramp limit (P138) switched off	• Rectify the short circuit • Only switch when output stage inhibited • Connect a smaller motor • Call SEW Service for advice if the fault still cannot be reset • Ramp limit (P138 = YES)
03	Ground fault	Immediate switch-off	• Ground fault on motor • Ground fault on inverter • Ground fault in the motor lead • Over-current (see F-01)	• Replace the motor • Replace the MOVITRAC® 07 • Rectify the ground fault • See F-01
04	Brake chopper	Immediate switch-off	• Regenerative power excessive • Braking resistor circuit interrupted • Short circuit in braking resistor circuit • Excessively high braking resistance • Brake chopper defective • Ground fault	• Extend deceleration ramps • Check connecting harness for braking resistor • Rectify the short circuit • Check technical data of braking resistor • Replace the MOVITRAC® 07 • Rectify the ground fault
06	Supply system phase failure (only with three-phase inverter)	Immediate switch-off	Phase fault	Check supply system lead
07	DC-link overvoltage	Immediate switch-off	• DC link voltage too high • Ground fault	• Extend deceleration ramps • Check connecting harness for braking resistor • Check technical data of braking resistor • Rectify the ground fault
08	Speed monitoring	Immediate switch-off	Current controller is operating at the setting limit due to: • mechanical overload • phase failure in supply system • phase failure in motor Maximum speed for VFC operating mode exceeded	• Reduce load • Increase delay time setting P501 • Check current limitation • Extend deceleration ramps • Check supply system phases • Check motor feeder and motor • Reduce maximum speed
10	ILLOP	Emergency stop	• Incorrect command during running of program • Incorrect conditions during running of program • Function not in inverter / not implemented	• Check program • Check program structure • Use another function

No.	Name	Response	Possible cause	Action
11	Overtempera-ture	Rapid stop with inhibit	Thermal overload of inverter	• Reduce load and/or ensure ade-quate cooling • If the braking resistor is integrated in the heat sink: Mount the braking resistor externally
17-24	System fault	Immediate switch-off	Inverter electronics disrupted, possibly due to effect of EMC	Check ground connections and shields; improve them if necessary. Contact SEW Service for advice if this reoccurs.
25	EEPROM	Rapid stop with inhibit	Fault when accessing EEPROM	Call up default setting, perform reset and set parameters again. Contact SEW Service for advice if this reoc-curs.
26	External termi-nal	Programma-ble	Read in external fault signal via pro-grammable input	Eliminate specific cause of fault; repro-gram terminal if appropriate.
31	TF sensor	Rapid stop with inhibit	• Motor too hot, TF sensor has tripped • TF sensor of motor not connected or not connected properly • Connection of MOVITRAC® 07 and TF interrupted on motor	• Let motor cool down and reset fault • Check connections/links between MOVITRAC® 07 and TF
32	Index overrun	Emergency stop	Basic programming rules violated causing internal stack overflow	Check and correct user program
34	Ramp timeout	Immediate switch-off	The inverter signals F34 if you revoke the enable and the drive exceeds the rapid stop ramp time t13 by a certain time.	Extend the rapid stop ramp time
37	Watchdog timer	Immediate switch-off	Fault in system software sequence	Check ground connections and shields; improve them if necessary. Contact SEW Service for advice if this reoccurs.
38	System soft-ware	Immediate switch-off	System fault	Check ground connections and shields; improve them if necessary. Contact SEW Service for advice if this reoccurs.
43	RS-485 timeout	Rapid stop without inhibit[1]	Communication between inverter and PC interrupted	Check connection between inverter and PC.
44	Unit utilization	Immediate switch-off	Unit utilization (Ixt value) excessive	• Reduce power output • Extend ramps • If these points are not possible: Use a larger inverter

No.	Name	Response	Possible cause	Action
45	Initialization	Immediate switch-off with inhibit	Error during initialization	Contact SEW Service for advice.
47	System bus timeout	Rapid stop without inhibit[1]	Fault during communication via system bus	Check system bus connection.
77	Control word	None	An external control has attempted to set an invalid automatic mode	• Check serial connection to external control • Check write values of external control
81	Start condition	Immediate switch-off	**Only in "VFC hoist" operating mode:** The inverter could not inject the required amount of current into the motor during the pre-magnetization time: • Motor rated power too small in relation to inverter rated power • Motor cable cross section too small	• Check connection between inverter and motor • Check startup data and repeat startup if necessary
82	Output open	Immediate switch-off	**Only in "VFC hoist" operating mode:** • Two or all output phases interrupted • Motor rated power too small in relation to inverter rated power	Check connection between inverter and PC.
94	EEPROM checksum	Immediate switch-off	EEPROM defective	Contact SEW Service for advice.
97	Copy fault	Immediate switch-off	• Parameter module disconnected during copying process • Switching off/on during copying process	Prior to acknowledging the fault: • Load the factory setting or the complete data record from the parameter module

1 No reset required, fault message disappears after communication is reestablished

6.3 List of warnings (r-17 ... r-32)

No.	Name	Meaning
17	Function not implemented	Function not in inverter
19	Parameter lock activated	Parameters cannot be altered
32	Enable	You cannot run the function in ENABLE status

6.4 SEW electronics service

Send in for repair

Please contact the **SEW electronics service if a fault cannot be rectified** (→ "Customer and spare parts service").

Please always specify the service code number when you contact the SEW electronics service. This will enable SEW-EURODRIVE service to help you more effectively.

Please provide the following information if you are sending the unit in for repair:
Serial number (→ nameplate)
Unit designation
Brief description of the application (application, control via terminals or serial)
Motor which is connected (motor voltage, star or delta connection)
Nature of the fault
Peripheral circumstances
Your own presumption of what has happened
Unusual events which preceded the fault

7 Technical Data

7.1 CE-marking, UL approval and C-Tick

CE-marking

Low Voltage Directive

MOVITRAC® 07 frequency inverters comply with the regulations of the Low Voltage Directive 73/23/EEC.

Electromagnetic compatibility EMC

MOVITRAC® 07 frequency inverters are components of machines and systems. They comply with the EMC product standard EN 61800-3 *Variable-speed electrical drives*. If you want to apply the CE mark to the machine/system equipped with frequency inverters in accordance with the EMC Directive 89/336/EEC: Observe the instructions regarding EMC compliant installation.

MOVITRAC® 07 frequency inverters are equipped with a line filter as standard. They comply with the following limit value class to EN 55011 on the line side without further measures:

- **B**: 1-phase connection
- **A**: 3-phase connection
  - 230 V: 0.37 ... 7.5 kW
  - 400/500 V: 0.55 ... 11 kW

CE

The CE mark on the nameplate stands for conformity:

- With the Low Voltage Directive 73/23/EEC
- With the EMC Directive 89/336/EEC

SEW-EURODRIVE can issue a declaration of conformity to this effect on request.

UL approval

c UL us

UL and cUL approval has been granted for the entire MOVITRAC® 07 range of units. cUL is equivalent to CSA approval.

C-Tick

C-Tick approval has been granted for the entire MOVITRAC® 07 range of units. C-Tick certifies conformity with the requirements of the ACA (Australian Communications Authority).

7.2 General technical data

The following technical data applies to all MOVITRAC® 07 frequency inverters, regardless of size.

MOVITRAC® 07	All sizes
Interference immunity	To EN 61800-3
Interference emission with EMC-compliant installation	To limit value class • **B**: 1-phase connection • **A**: 3-phase connection – 230 V: 0.37 ... 7.5 kW – 400/500 V: 0.55 ... 11 kW To EN 55011 and EN 55014; complies with EN 61800-3
Discharge current	> 3.5 mA
Ambient temperature ϑ_{amb} at f_{PWM} = 4 kHz	230 V, 0.37 ... 2.2 kW 400/500 V, 0.55 ... 4.0 kW • –10 °C ... +50 °C at 100 % I_N • –10 °C ... +40 °C at 125 % I_N 230 V, 3.7 ... 30 kW 400/500 V, 5.5 ... 30 kW • 0 °C – +50 °C at 100 % I_N • 0 °C ... +40 °C at 125 % I_N
Power reduction	3.0 % I_N per K to max. 60 °C
Climate class	EN 60721-3-3, class 3K3
Storage temperature[1] Transport temperature	–25 °C ... +75 °C –25 °C ... +75 °C
Enclosure	IP20 Size 4 power connections: IP00, IP10 with Plexiglas cover mounted (supplied as standard)
Operating mode	Continuous duty (EN 60149-1-1 and 1-3)
Altitude	h ≤ 1000 m (3300 ft) • I_N reduction – 1 % per 100 m (330 ft) – From 1000 m to max. 4000 m (3300 ft to max. 13,200 ft) • V_N reduction – 3 V per 100 m (330 ft) – From 2000 m to max. 4000 m (6600 ft to max. 13,200 ft) Over 200 m (6600 ft) only overvoltage class 2, external measures are required for overvoltage class 3. Overvoltage classes to DIN VDE 0110-1.
Vibration-resistance	To EN 50 178 / VDE 0160

1 If the unit is being stored for a long time, connect it to the mains voltage for at least 5 minutes every 2 years. Otherwise, the service life of the unit will be reduced.

7.3 Technical data of MOVITRAC® 07

230 V

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Figure 20: MOVITRAC® 07 230 V units

Size	0S	0L	1	2	3	4
Power [kW / HP]	0.37 / 0.5 0.55 / 0.75 0.75 / 1.0	1.1 / 1.5 1.5 / 2.0 2.2 / 3.0	3.7 / 5	5.5 / 7.5 7.5 / 10	11 / 15 15 / 20	22 / 30 30 / 40
Mains connection	230 V / 1-phase 230 V / 3-phase		230 V / 3-phase			

400/500 V

51116AXX

Figure 21: MOVITRAC® 07 400/500 V units

Size	0M	0L	2S	2	3
Power [kW / HP]	0.55 / 0.75 0.75 / 1.0 1.1 / 1.5	1.5 / 1.0 2.2 / 3.0 3.0 / 4.0 4.0 / 5.0	5.5 / 7.5 7.5 / 10	11 / 15	15 / 20 22 / 30 30 / 40
Mains connection	400/500 V / 3-phase				

230 V_{AC} / 1-phase / size 0S / 0.37 ... 0.75 kW / 0.5 ... 1.0 HP

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Figure 22: MOVITRAC® 07 / size 0S / 1-phase 230 V_{AC}

MOVITRAC® MC07A (1-phase supply system)		**004-2B1-4-..**	**005-2B1-4-..**	**008-2B1-4-..**
Part number		826 951 3	826 952 1	826 953 X
Part number with LOGODrive		827 185 2	827 186 0	827 187 9
INPUT				
Connection voltage Permitted range	V_{mains}	1 x 230 V_{AC} V_{mains} = 200 V_{AC} -10 % ... 240 V_{AC} +10 %		
Supply frequency	f_{mains}	50/60 Hz +/-5 %		
Rated system current, 1-phase at V_{mains} = 230 V_{AC}	100% I_{mains} 125% I_{mains}	6.1 A_{AC} 7.5 A_{AC}	8.5 A_{AC} 10.2 A_{AC}	9.9 A_{AC} 11.8 A_{AC}
OUTPUT				
Output voltage	V_N	3 x 0 ... V_{mains}		
Recommended motor power under constant load (with V_{mains} = 230 V_{AC})	P_{mot}	0.37 kW 0.5 HP	0.55 kW 0.75 HP	0.75 kW 1.0 HP
Recommended motor power under variable torque load or constant load without overload (with V_{mains} = 230 V_{AC})	P_{mot}	0.55 kW 0.75 HP	0.75 kW 1.0 HP	1.1 kW 1.5 HP
Rated output current at V_{mains} = 230 V_{AC}	I_N	2.5 A_{AC}	3.3 A_{AC}	4.2 A_{AC}
Minimum permitted braking resistor value (4-Q operation)	R_{BWmin}	72 Ω		

MOVITRAC® MC07A (1-phase supply system)		004-2B1-4-..	005-2B1-4-..	008-2B1-4-..
GENERAL				
Power loss at I_N	P_V	45 W	55 W	65 W
Current limitation		125 % I_N continuous duty (fan/pump operation) 150 % I_N for maximum 60 seconds		
PWM frequency	f_{PWM}	4 / 8 / 12 / 16 kHz		
Speed range Resolution	n_A Δn_A	0 ... 5500 rpm 1 rpm		
Connections		Terminals 2.5 mm^2		
Dimensions	W x H x D	90 x 185 x 150 mm 3.5 x 7.2 x 5.9 in		
Weight	m	1.5 kg 3.3 lb		

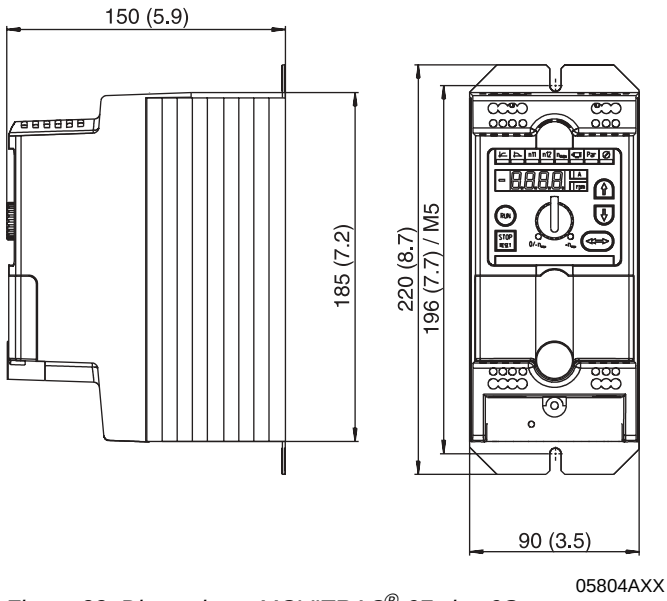

Figure 23: Dimensions, MOVITRAC® 07 size 0S

Provide 100 mm (4 in) clearance above and below the unit to ensure adequate cooling! There is no need for clearance at the sides. You can line up the units directly next to one another. Make sure that the circulation of air is not disrupted by cables or other installation materials. Prevent the heated exhaust air from other units from blowing onto this unit.

230 V_{AC} / 1-phase / size 0L / 1.1 ... 2.2 kW / 1.5 ... 3.0 HP

Figure 24: MOVITRAC® 07 / size 0L / 1-phase 230 V_{AC}

MOVITRAC® MC07A (1-phase supply system)		**011-2B1-4-..**	**015-2B1-4-..**	**022-2B1-4-..**
Part number		826 954 8	826 955 6	826 956 4
Part number with LOGODrive		827 188 7	827 189 5	827 190 9
INPUT				
Connection voltage Permitted range	V_{mains}	1 x 230 V_{AC} V_{mains} = 200 V_{AC} -10 % ... 240 V_{AC} +10 %		
Supply frequency	f_{mains}	50/60 Hz +/-5 %		
Rated system current, 1-phase at V_{mains} = 230 V_{AC}	100% I_{mains} 125% I_{mains}	13.4 A_{AC} 16.8 A_{AC}	16.7 A_{AC} 20.7 A_{AC}	19.7 A_{AC} 24.3 A_{AC}
OUTPUT				
Output voltage	V_N	3 x 0 ... V_{mains}		
Recommended motor power under constant load (with V_{mains} = 230 V_{AC})	P_{mot}	1.1 kW 1.5 HP	1.5 kW 2.0 HP	2.2 kW 3.0 HP
Recommended motor power under variable torque load or constant load without overload (with V_{mains} = 230 V_{AC})	P_{mot}	1.5 kW 2.0 HP	2.2 kW 3.0 HP	3.0 kW 4.0 HP
Rated output current at V_{mains} = 230 V_{AC}	I_N	5.7 A_{AC}	7.3 A_{AC}	8.6 A_{AC}
Minimum permitted braking resistor value (4-Q operation)	R_{BWmin}	27 Ω		

MOVITRAC® MC07A (1-phase supply system)		011-2B1-4-..	015-2B1-4-..	022-2B1-4-..
GENERAL				
Power loss at I_N	P_V	75 W	100 W	125 W
Current limitation		125 % I_N continuous duty (fan/pump operation) 150 % I_N for maximum 60 seconds		
PWM frequency	f_{PWM}	4 / 8 / 12 / 16 kHz		
Speed range Resolution	n_A Δn_A	0 ... 5500 rpm 1 rpm		
Connections		Terminals 4 mm^2		
Dimensions	W x H x D	90 x 295 x 150 mm 3.5 x 9.5 x 5.9 in		
Weight	m	2.5 kg 5.5 lb		

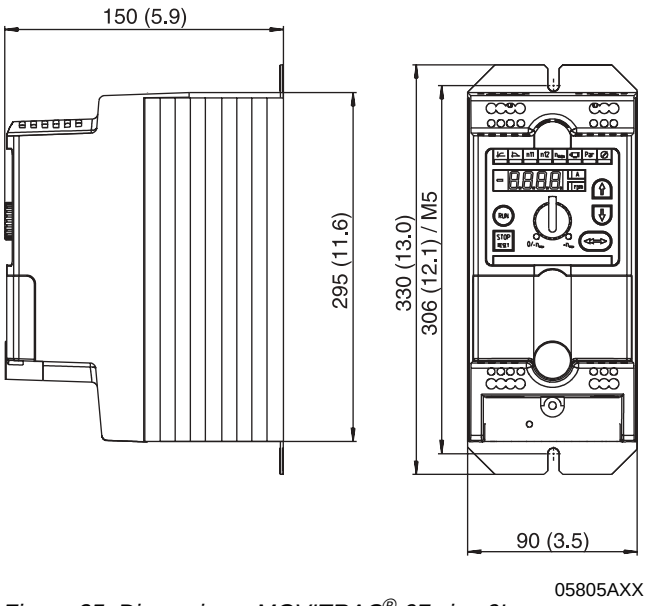

Figure 25: Dimensions, MOVITRAC® 07 size 0L

Provide 100 mm (4 in) clearance above and below the unit to ensure adequate cooling! There is no need for clearance at the sides. You can line up the units directly next to one another. Make sure that the circulation of air is not disrupted by cables or other installation materials. Prevent the heated exhaust air from other units from blowing onto this unit.

230 V_{AC} / 3-phase / size 0S / 0.37 ... 0.75 kW / 0.5 ... 1.0 HP

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Figure 26: MOVITRAC® 07 / size 0S / 3-phase 230 V_{AC}

MOVITRAC® 07A (3-phase supply system)		**004-2A3-4-..**	**005-2A3-4-..**	**008-2A3-4-..**
Part number		826 957 2	826 958 0	826 959 9
Part number with LOGODrive		827 191 7	827 192 5	827 193 3
INPUT				
Connection voltage Permitted range	V_{mains}	3 x 230 V_{AC} V_{mains} = 200 V_{AC} -10 % ... 240 V_{AC} +10 %		
Supply frequency	f_{supply}	50/60 Hz +/-5 %		
Rated system current, 3-phase at V_{mains} = 230 V_{AC}	100% I_{mains} 125% I_{mains}	2.0 A_{AC} 2.4 A_{AC}	2.8 A_{AC} 3.4 A_{AC}	3.3 A_{AC} 4.1 A_{AC}
OUTPUT				
Output voltage	V_N	3 x 0 ... V_{mains}		
Recommended motor power under constant load (with V_{mains} = 230 V_{AC})	P_{mot}	0.37 kW 0.5 HP	0.55 kW 0.75 HP	0.75 kW 1.0 HP
Recommended motor power under variable torque load or constant load without overload (with V_{mains} = 230 V_{AC})	P_{mot}	0.55 kW 0.75 HP	0.75 kW 1.0 HP	1.1 kW 1.5 HP
Rated output current at V_{mains} = 230 V_{AC}	I_N	2.5 A_{AC}	3.3 A_{AC}	4.2 A_{AC}
Minimum permitted braking resistor value (4-Q operation)	R_{BWmin}	72 Ω		

MOVITRAC® 07A (3-phase supply system)		004-2A3-4-..	005-2A3-4-..	008-2A3-4-..
GENERAL				
Power loss at I_N	P_V	45 W	55 W	65 W
Current limitation		125 % I_N continuous duty (fan/pump operation) 150 % I_N for maximum 60 seconds		
PWM frequency	f_{PWM}	4 / 8 / 12 / 16 kHz		
Speed range Resolution	n_A Δn_A	0 ... 5500 rpm 1 rpm		
Connections		Terminals 2.5 mm^2		
Dimensions	W x H x D	90 x 185 x 150 mm 3.5 x 7.2 x 5.9 in		
Weight	m	1.5 kg 3.3 lb		

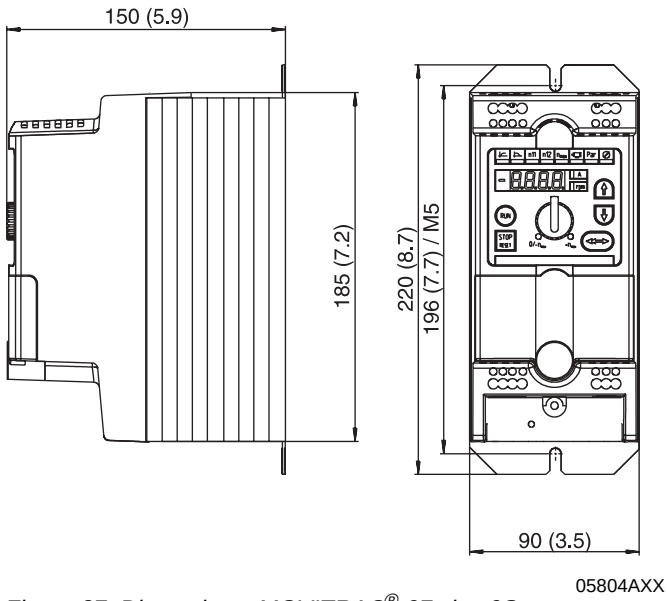

Figure 27: Dimensions, MOVITRAC® 07 size 0S

Provide 100 mm (4 in) clearance above and below the unit to ensure adequate cooling! There is no need for clearance at the sides. You can line up the units directly next to one another. Make sure that the circulation of air is not disrupted by cables or other installation materials. Prevent the heated exhaust air from other units from blowing onto this unit.

230 V_{AC} / 3-phase / size 0L / 1.1 ... 2.2 kW / 1.5 ... 3.0 HP

Figure 28: MOVITRAC® 07 / size 0L / 3-phase 230 V_{AC}

MOVITRAC® 07A (3-phase supply system)		**011-2A3-4-..**	**015-2A3-4-..**	**022-2A3-4-..**
Part number		826 960 2	826 961 0	826 962 9
Part number with LOGODrive		827 194 1	827 195 X	827 196 8
INPUT				
Connection voltage Permitted range	V_{mains}	3 x 230 V_{AC} V_{mains} = 200 V_{AC} -10 % ... 240 V_{AC} +10 %		
Supply frequency	f_{mains}	50/60 Hz +/-5 %		
Rated system current, 3-phase at V_{mains} = 230 V_{AC}	100% I_{mains} 125% I_{mains}	5.1 A_{AC} 6.3 A_{AC}	6.4 A_{AC} 7.9 A_{AC}	7.6 A_{AC} 9.5 A_{AC}
OUTPUT				
Output voltage	V_N	3 x 0 ... V_{mains}		
Recommended motor power under constant load (with V_{mains} = 230 V_{AC})	P_{mot}	1.1 kW 1.5 HP	1.5 kW 2.0 HP	2.2 kW 3.0 HP
Recommended motor power under variable torque load or constant load without overload (with V_{mains} = 230 V_{AC})	P_{mot}	1.5 kW 2.0 HP	2.2 kW 3.0 HP	3.0 kW 4.0 HP
Rated output current at V_{mains} = 230 V_{AC}	I_N	5.7 A_{AC}	7.3 A_{AC}	8.6 A_{AC}
Minimum permitted braking resistor value (4-Q operation)	R_{BWmin}	27 Ω		

MOVITRAC® 07A (3-phase supply system)		011-2A3-4-..	015-2A3-4-..	022-2A3-4-..
GENERAL				
Power loss at I_N	P_V	75 W	100 W	125 W
Current limitation		125 % I_N continuous duty (fan/pump operation) 150 % I_N for maximum 60 seconds		
PWM frequency	f_{PWM}	4 / 8 / 12 / 16 kHz		
Speed range Resolution	n_A Δn_A	0 ... 5500 rpm 1 rpm		
Connections		Terminals 4 mm²		
Dimensions	W x H x D	90 x 295 x 150 mm 3.5 x 9.5 x 5.9 in		
Weight	m	2.5 kg 5.5 lb		

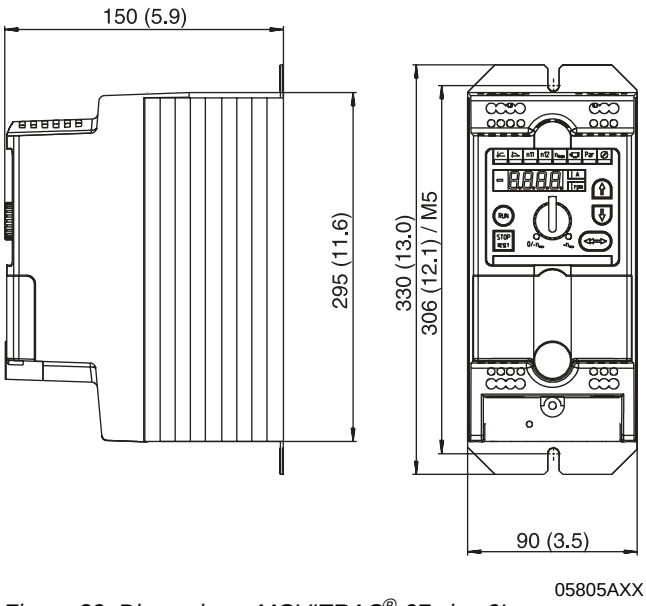

Figure 29: Dimensions, MOVITRAC® 07 size 0L

Provide 100 mm (4 in) clearance above and below the unit to ensure adequate cooling! There is no need for clearance at the sides. You can line up the units directly next to one another. Make sure that the circulation of air is not disrupted by cables or other installation materials. Prevent the heated exhaust air from other units from blowing onto this unit.

230 V_{AC} / 3-phase / size 1 / 3.7 kW / 5.0 HP

Figure 30: MOVITRAC® 07 / size 1 / 3-phase 230 V_{AC}

MOVITRAC® 07A (3-phase supply system)		**037-2A3-4-..**
Part number		827 278 6
Part number with LOGODrive		827 285 9
INPUT		
Connection voltage Permitted range	V_{mains}	3 x 230 V_{AC} V_{mains} = 200 V_{AC} -10 % ... 240 V_{AC} +10 %
Supply frequency	f_{supply}	50/60 Hz +/-5 %
Rated system current, 3-phase at V_{mains} = 230 V_{AC}	100% I_{mains} 125% I_{mains}	12.9 A_{AC} 16.1 A_{AC}
OUTPUT		
Output voltage	V_N	3 x 0 ... V_{mains}
Recommended motor power under constant load (with V_{mains} = 230 V_{AC})	P_{mot}	3.7 kW 5 HP
Recommended motor power under variable torque load or constant load without overload (with V_{mains} = 230 V_{AC})	P_{mot}	5.5 kW 7.5 HP
Minimum permitted braking resistor value (4-Q operation)	R_{BWmin}	27 Ω

MOVITRAC® 07A (3-phase supply system)		037-2A3-4-..
GENERAL		
Power loss at I_N	P_V	210 W
Current limitation		125 % I_N continuous duty (fan/pump operation) 150 % I_N for maximum 60 seconds
PWM frequency	f_{PWM}	4 / 8 / 12 / 16 kHz
Speed range Resolution	n_A Δn_A	0 ... 5500 rpm 1 rpm
Connections	Terminals	4 mm^2
Dimensions	W x H x D	105 x 315 x 144 mm 4.1 x 12.4 x 5.7 in
Weight	m	3.5 kg 7.7 lb

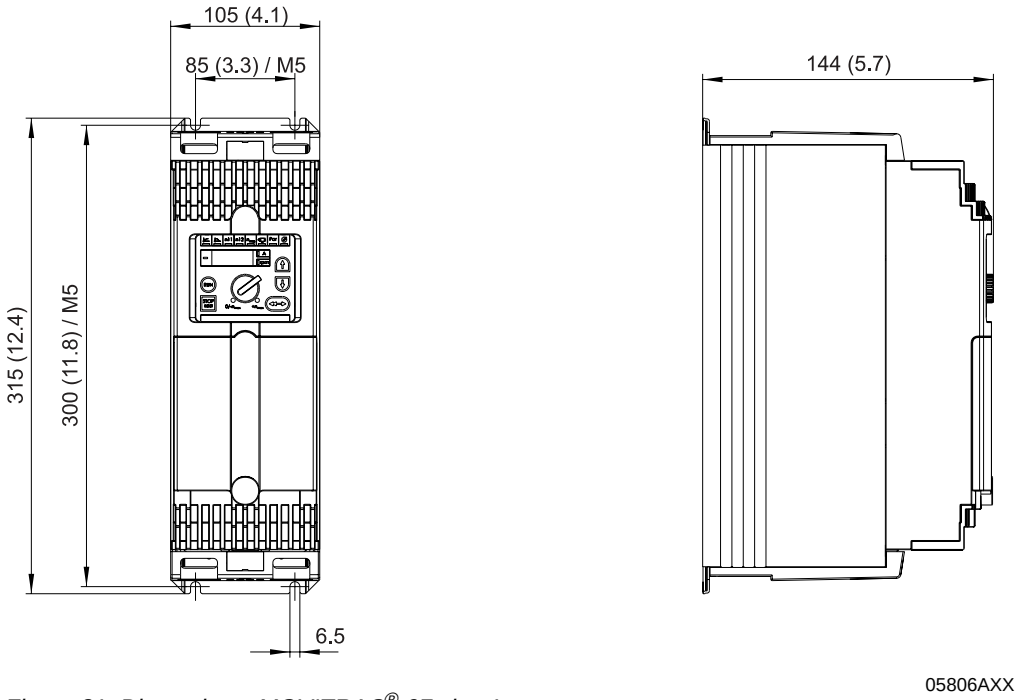

Figure 31: Dimensions, MOVITRAC® 07 size 1

Provide 100 mm (4 in) clearance above and below the unit to ensure adequate cooling! There is no need for clearance at the sides. You can line up the units directly next to one another. Make sure that the circulation of air is not disrupted by cables or other installation materials. Prevent the heated exhaust air from other units from blowing onto this unit.

230 V_{AC} / 3-phase / size 2 / 5.5 ... 7.5 kW / 7.5 ... 10 HP

Figure 32: MOVITRAC® 07 / size 2 / 3-phase 230 V_{AC}

MOVITRAC® 07A (3-phase supply system)		**055-2A3-4-..**	**075-2A3-4-..**
Part number		827 279 4	827 280 8
Part number with LOGODrive		827 286 7	827 287 5
INPUT			
Connection voltage Permitted range	V_{mains}	3 x 230 V_{AC} V_{mains} = 200 V_{AC} -10 % ... 240 V_{AC} +10 %	
Supply frequency	f_{mains}	50/60 Hz +/-5 %	
Rated system current, 3-phase at V_{mains} = 230 V_{AC}	100% I_{mains} 125% I_{mains}	19.5 A_{AC} 24.4 A_{AC}	27.4 A_{AC} 34.3 A_{AC}
OUTPUT			
Output voltage	V_N	3 x 0 ... V_{mains}	
Recommended motor power under constant load (with V_{mains} = 230 V_{AC})	P_{mot}	5.5 kW 7.5 HP	7.5 kW 10 HP
Recommended motor power under variable torque load or constant load without overload (with V_{mains} = 230 V_{AC})	P_{mot}	7.5 kW 10 HP	11 kW 15 HP
Rated output current at V_{mains} = 230 V_{AC}	I_N	22 A_{AC}	29 A_{AC}
Minimum permitted braking resistor value (4-Q operation)	R_{BWmin}	12 Ω	

MOVITRAC® 07A (3-phase supply system)		055-2A3-4-..	075-2A3-4-..
GENERAL			
Power loss at I_N	P_V	300 W	380 W
Current limitation		125 % I_N continuous duty (fan/pump operation) 150 % I_N for maximum 60 seconds	
PWM frequency	f_{PWM}	4 / 8 / 12 / 16 kHz	
Speed range Resolution	n_A Δn_A	0 ... 5500 rpm 1 rpm	
Connections	Terminals	4 mm^2	6 mm^2
Dimensions	W x H x D	130 x 335 x 196 mm 5.1 x 13.2 x 7.7 in	
Weight	m	6.6 kg 14.6 lb	

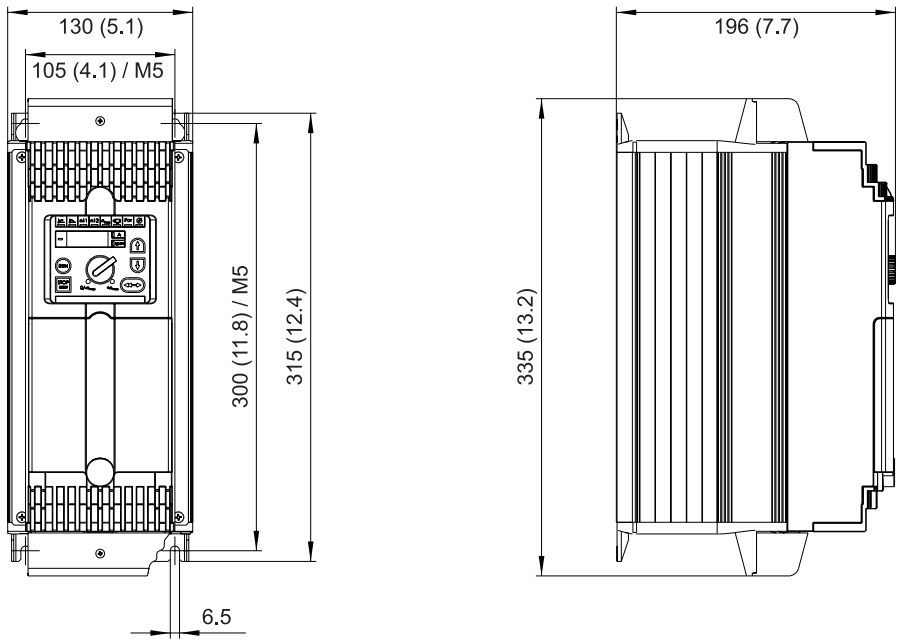

Figure 33: Dimensions, MOVITRAC® 07 size 2

Provide 100 mm (4 in) clearance above and below the unit to ensure adequate cooling! There is no need for clearance at the sides. You can line up the units directly next to one another. Make sure that the circulation of air is not disrupted by cables or other installation materials. Prevent the heated exhaust air from other units from blowing onto this unit.

230 V_{AC} / 3-phase / size 3 / 11 ... 15 kW / 15 ... 20 HP

Figure 34: MOVITRAC® 07 / size 3 / 3-phase 230 V_{AC}

MOVITRAC® 07A (3-phase supply system)		**110-203-4-..**	**150-203-4-..**
Part number		827 281 6	827 282 4
Part number with LOGODrive		827 288 3	827 289 1
INPUT			
Connection voltage Permitted range	V_{mains}	3 x 230 V_{AC} V_{mains} = 200 V_{AC} -10 % ... 240 V_{AC} +10 %	
Supply frequency	f_{supply}	50/60 Hz +/-5 %	
Rated system current, 3-phase at V_{mains} = 230 V_{AC}	100% I_{mains} 125% I_{mains}	40.0 A_{AC} 50.0 A_{AC}	48.6 A_{AC} 60.8 A_{AC}
OUTPUT			
Output voltage	V_N	3 x 0 ... V_{mains}	
Recommended motor power under constant load (with V_{mains} = 230 V_{AC})	P_{mot}	11 kW 15 HP	15 kW 20 HP
Recommended motor power under variable torque load or constant load without overload (with V_{mains} = 230 V_{AC})	P_{mot}	15 kW 20 HP	22 kW 30 HP
Rated output rated current at V_{mains} = 230 V_{AC}	I_N	7.5 A_{AC}	5.6 A_{AC}
Minimum permitted braking resistor value (4-Q operation)	R_{BWmin}	15 Ω	

MOVITRAC® 07A (3-phase supply system)		110-203-4-..	150-203-4-..
GENERAL			
Power loss at I_N	P_V	580 W	720 W
Current limitation		125 % I_N continuous duty (fan/pump operation) 150 % I_N for maximum 60 seconds	
PWM frequency	f_{PWM}	4 / 8 / 12 / 16 kHz	
Speed range Resolution	n_A Δn_A	0 ... 5500 rpm 1 rpm	
Connections	Terminals	10 mm^2	16 mm^2
Dimensions	W x H x D	200 x 465 x 218 mm 7.9 x 18.3 x 8.6 in	
Weight	m	15 kg 33.1 lb	

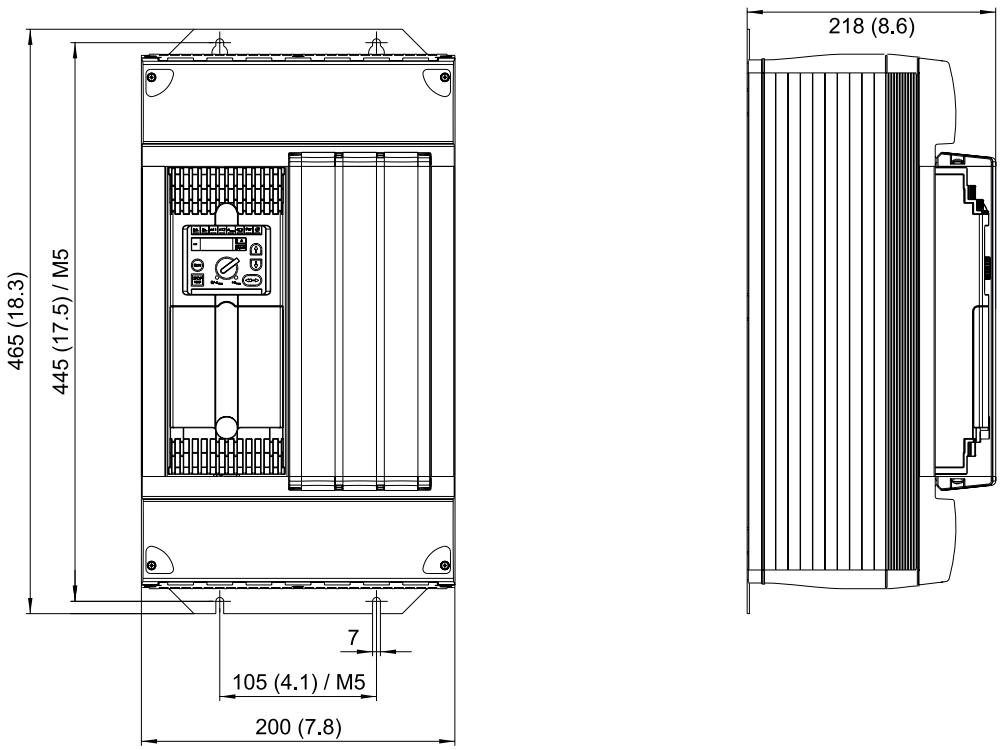

Figure 35: Dimensions, MOVITRAC® 07 size 3

Provide 100 mm (4 in) clearance above and below the unit to ensure adequate cooling! There is no need for clearance at the sides. You can line up the units directly next to one another. Make sure that the circulation of air is not disrupted by cables or other installation materials. Prevent the heated exhaust air from other units from blowing onto this unit.

230 V_{AC} / 3-phase / size 4 / 22 ... 30 kW / 30 ... 40 HP

Figure 36: MOVITRAC® 07 / size 4 / 3-phase 230 V_{AC}

MOVITRAC® 07A (3-phase supply system)		**220-203-4-..**	**300-203-4-..**
Part number		827 283 2	827 284 0
Part number with LOGODrive		827 290 5	827 291 3
INPUT			
Connection voltage Permitted range	V_{mains}	3 x 230 V_{AC} V_{mains} = 200 V_{AC} -10 % ... 240 V_{AC} +10 %	
Supply frequency	f_{mains}	50/60 Hz +/-5 %	
Rated system current, 3-phase at V_{mains} = 230 V_{AC}	100% I_{mains} 125% I_{mains}	72 A_{AC} 90 A_{AC}	86 A_{AC} 107 A_{AC}
OUTPUT			
Output voltage	V_N	3 x 0 ... V_{mains}	
Recommended motor power under constant load (with V_{mains} = 230 V_{AC})	P_{mot}	22 kW 30 HP	30 kW 40 HP
Recommended motor power under variable torque load or constant load without overload (with V_{mains} = 230 V_{AC})	P_{mot}	30 kW 40 HP	37 kW 50 HP
Rated output current at V_{mains} = 230 V_{AC}	I_N	80 A_{AC}	95 A_{AC}
Minimum permitted braking resistor value (4-Q operation)	R_{BWmin}	3 Ω	

MOVITRAC® 07A (3-phase supply system)		220-203-4-..	300-203-4-..
GENERAL			
Power loss at I_N	P_V	1100 W	1300 W
Current limitation		125 % I_N continuous duty (fan/pump operation) 150 % I_N for maximum 60 seconds	
PWM frequency	f_{PWM}	4 / 8 / 12 / 16 kHz	
Speed range Resolution	n_A Δn_A	0 ... 5500 rpm 1 rpm	
Connections	Terminals	25 mm^2	35 mm^2
Dimensions	W x H x D	280 x 522 x 222 mm 11.0 x 20.6 x 8.7 in	
Weight	m	27 kg 59.5 lb	

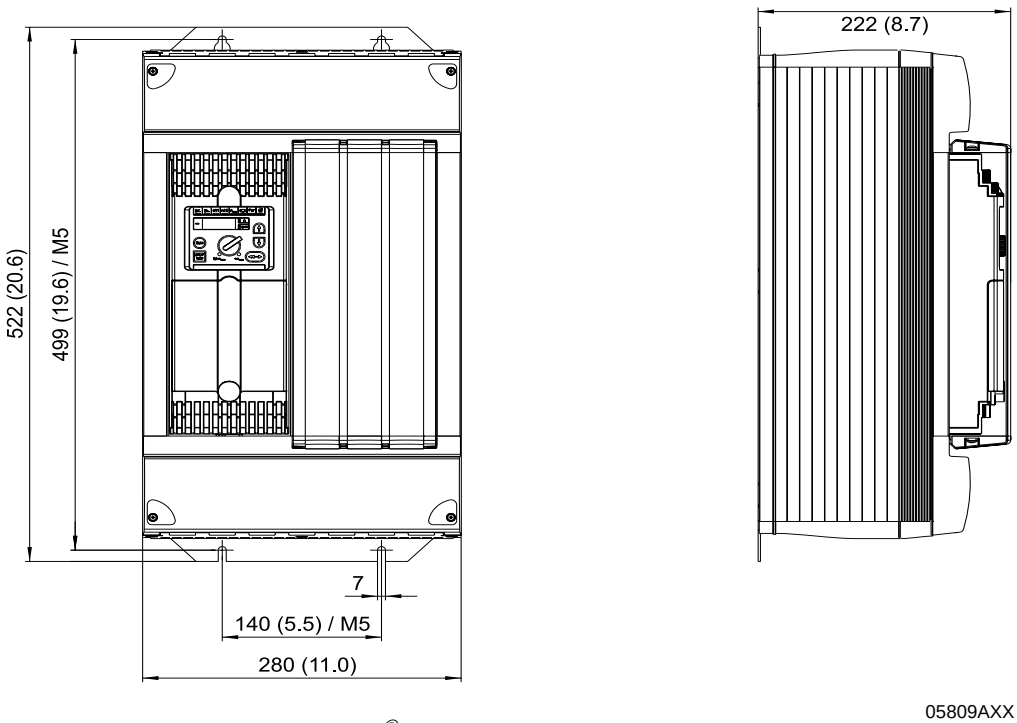

Figure 37: Dimensions, MOVITRAC® 07 size 4

Provide 100 mm (4 in) clearance above and below the unit to ensure adequate cooling! There is no need for clearance at the sides. You can line up the units directly next to one another. Make sure that the circulation of air is not disrupted by cables or other installation materials. Prevent the heated exhaust air from other units from blowing onto this unit.

400/500 V_{AC} / 3-phase / size 0M / 0.55 ... 1.1 kW / 0.75 ... 1.5 HP

Figure 38: MOVITRAC® 07 / size 0M / 3-phase 400/500 V_{AC}

MOVITRAC® 07A (3-phase supply system)		**005-5A3-4-..**	**008-5A3-4-..**	**011-5A3-4-..**
Part number		827 247 6	827 248 4	827 249 2
Part number with LOGODrive		827 292 1	827 293 x	827 294 8
INPUT				
Connection voltage Permitted range	V_{mains}	3 x 400 V_{AC} V_{mains} = 380 V_{AC} -10 % ... 500 V_{AC} +10 %		
Supply frequency	f_{mains}	50/60 Hz +/-5 %		
Rated system current, 3-phase at V_{mains} = 400 V_{AC}	100% I_{mains} 125% I_{mains}	1.8 A_{AC} 2.3 A_{AC}	2.2 A_{AC} 2.6 A_{AC}	2.8 A_{AC} 3.5 A_{AC}
OUTPUT				
Output voltage	V_N	3 x 0 ... V_{mains}		
Recommended motor power under constant load (with V_{mains} = 400 V_{AC})	P_{mot}	0.55 kW 0.75 HP	0.75 kW 1.0 HP	1.1 kW 1.5 HP
Recommended motor power under variable torque load or constant load without overload (with V_{mains} = 400 V_{AC})	P_{mot}	0.75 kW 1.0 HP	1.1 kW 1.5 HP	1.5 kW 2.0 HP
Rated output current at V_{mains}= 400 V_{AC}	I_N	2.0 A_{AC}	2.4 A_{AC}	3.1 A_{AC}
Minimum permitted braking resistor value (4-Q operation)	R_{BWmin}	68 Ω		

MOVITRAC® 07A (3-phase supply system)		005-5A3-4-..	008-5A3-4-..	011-5A3-4-..
GENERAL				
Power loss at I_N	P_V	42 W	48 W	58 W
Current limitation		125 % I_N continuous duty (fan/pump operation) 150 % I_N for maximum 60 seconds		
PWM frequency	f_{PWM}	4 / 8 / 12 / 16 kHz		
Speed range Resolution	n_A Δn_A	0 ... 5500 rpm 1 rpm		
Connections		Terminals 4 mm^2		
Dimensions	W x H x D	90 x 245 x 150 mm 3.5 x 9.6 x 5.9 in		
Weight	m	2.0 kg 4.4 lb		

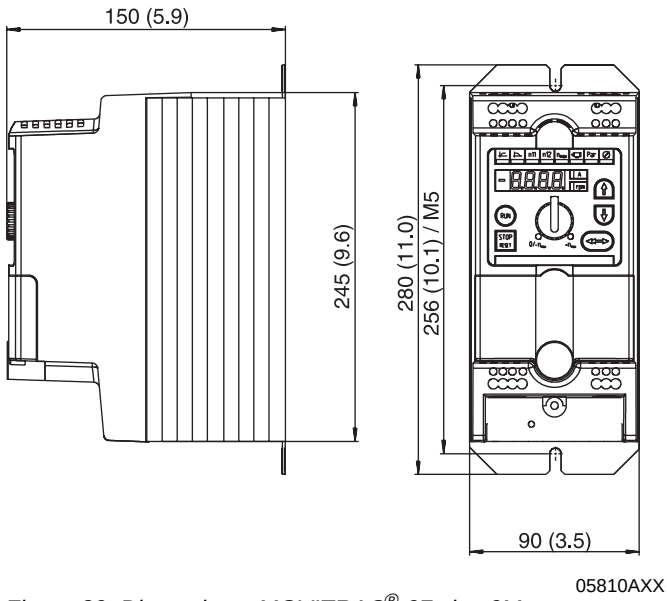

Figure 39: Dimensions, MOVITRAC® 07 size 0M

Provide 100 mm (4 in) clearance above and below the unit to ensure adequate cooling! There is no need for clearance at the sides. You can line up the units directly next to one another. Make sure that the circulation of air is not disrupted by cables or other installation materials. Prevent the heated exhaust air from other units from blowing onto this unit.

400/500 V_{AC} / 3-phase / size 0L / 1.5 ... 4.0 kW / 2.0 ... 5.0 HP

Figure 40: MOVITRAC® 07 / size 0L / 3-phase 400/500 V_{AC}

MOVITRAC® 07A (3-phase supply system)		**015-5A3-4-..**	**022-5A3-4-..**	**030-5A3-4-..**	**040-5A3-4-..**
Part number		827 250 6	827 251 4	827 252 2	827 253 0
Part number with LOGODrive		827 295 6	827 296 4	827 297 2	827 298 0
INPUT					
Connection voltage Permitted range	V_{mains}	3 x 400 V_{AC} V_{mains} = 380 V_{AC} -10 % ... 500 V_{AC} +10 %			
Supply frequency	f_{mains}	50/60 Hz +/-5 %			
Rated system current, 3-phase at V_{mains} = 400 V_{AC}	100% I_{mains} 125% I_{mains}	3.6 A_{AC} 4.5 A_{AC}	5.0 A_{AC} 6.2 A_{AC}	6.3 A_{AC} 7.9 A_{AC}	8.6 A_{AC} 10.7 A_{AC}
OUTPUT					
Output voltage	V_N	3 x 0 ... V_{mains}			
Recommended motor power under constant load (with V_{mains} = 400 V_{AC})	P_{mot}	1.5 kW 2.0 HP	2.2 kW 3.0 HP	3.0 kW 4.0 HP	4.0 kW 5.0 HP
Recommended motor power under variable torque load or constant load without overload (with V_{mains} = 400 V_{AC})	P_{mot}	2.2 kW 3.0 HP	3.0 kW 4.0 HP	4.0 kW 5.0 HP	5.5 kW 7.5 HP
Rated output current at V_{mains} = 400 V_{AC}	I_N	4.0 A_{AC}	5.5 A_{AC}	7.0 A_{AC}	9.5 A_{AC}
Minimum permitted braking resistor value (4-Q operation)	R_{BWmin}	68 Ω			

MOVITRAC® 07A (3-phase supply system)		015-5A3-4-..	022-5A3-4-..	030-5A3-4-..	040-5A3-4-..
GENERAL					
Power loss at I_N	P_V	74 W	97 W	123 W	155 W
Current limitation		125 % I_N continuous duty (fan/pump operation) 150 % I_N for maximum 60 seconds			
PWM frequency	f_{PWM}	4 / 8 / 12 / 16 kHz			
Speed range Resolution	n_A Δn_A	0 ... 5500 rpm 1 rpm			
Connections		Terminals 4 mm^2			
Dimensions	W x H x D	90 x 295 x 150 mm 3.5 x 11.6 x 5.9 in			
Weight	m	2.5 kg 5.5 lb			

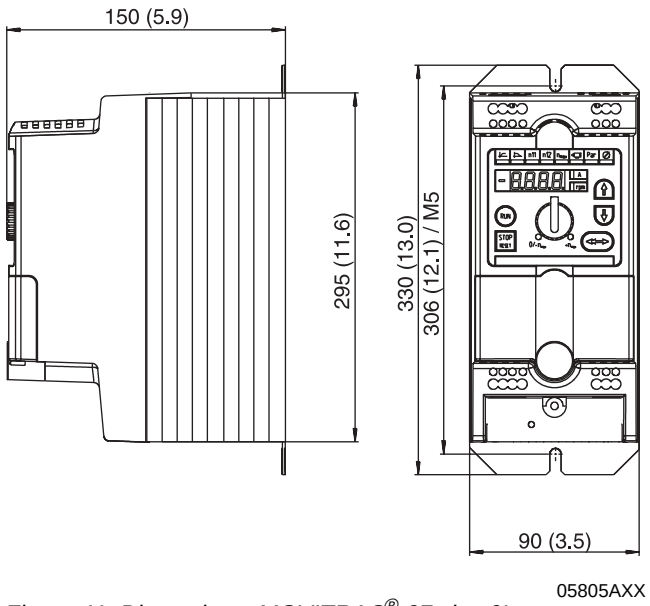

Figure 41: Dimensions, MOVITRAC® 07 size 0L

Provide 100 mm (4 in) clearance above and below the unit to ensure adequate cooling! There is no need for clearance at the sides. You can line up the units directly next to one another. Make sure that the circulation of air is not disrupted by cables or other installation materials. Prevent the heated exhaust air from other units from blowing onto this unit.

400/500 V_{AC} / 3-phase / size 2S / 5.5 ... 7.5 kW / 7.5 ... 10 HP

Figure 42: MOVITRAC® 07 / size 2S / 3-phase 400/500 V_{AC}

MOVITRAC® 07A (3-phase supply system)		**055-5A3-4-..**	**075-5A3-4-..**
Part number		827 254 9	827 255 7
Part number with LOGODrive		827 299 9	827 300 6
INPUT			
Connection voltage Permitted range	V_{mains}	3 x 400 V_{AC} V_{mains} = 380 V_{AC} -10 % ... 500 V_{AC} +10 %	
Supply frequency	f_{mains}	50/60 Hz +/-5 %	
Rated system current, 3-phase at V_{mains} = 400 V_{AC}	100% I_{mains} 125% I_{mains}	11.3 A_{AC} 14.1 A_{AC}	14.4 A_{AC} 18.0 A_{AC}
OUTPUT			
Output voltage	V_N	3 x 0 ... V_{mains}	
Recommended motor power under constant load (with V_{mains} = 400 V_{AC})	P_{mot}	5.5 kW 7.5 HP	7.5 kW 10 HP
Recommended motor power under variable torque load or constant load without overload (with V_{mains} = 400 V_{AC})	P_{mot}	7.5 kW 10 HP	11 kW 15 HP
Rated output current at V_{mains} = 400 V_{AC}	I_N	12.5 A_{AC}	16 A_{AC}
Minimum permitted braking resistor value (4-Q operation)	R_{BWmin}	47 Ω	

MOVITRAC® 07A (3-phase supply system)		055-5A3-4-..	075-5A3-4-..
GENERAL			
Power loss at I_N	P_V	220 W	290 W
Current limitation		125 % I_N continuous duty (fan/pump operation) 150 % I_N for maximum 60 seconds	
PWM frequency	f_{PWM}	4 / 8 / 12 / 16 kHz	
Speed range Resolution	n_A Δn_A	0 ... 5500 rpm 1 rpm	
Connections	Terminals	4 mm^2	
Dimensions	W x H x D	105 x 335 x 205 mm 4.1 x 13.2 x 8.1 in	
Weight	m	5.0 kg 11.0 lb	

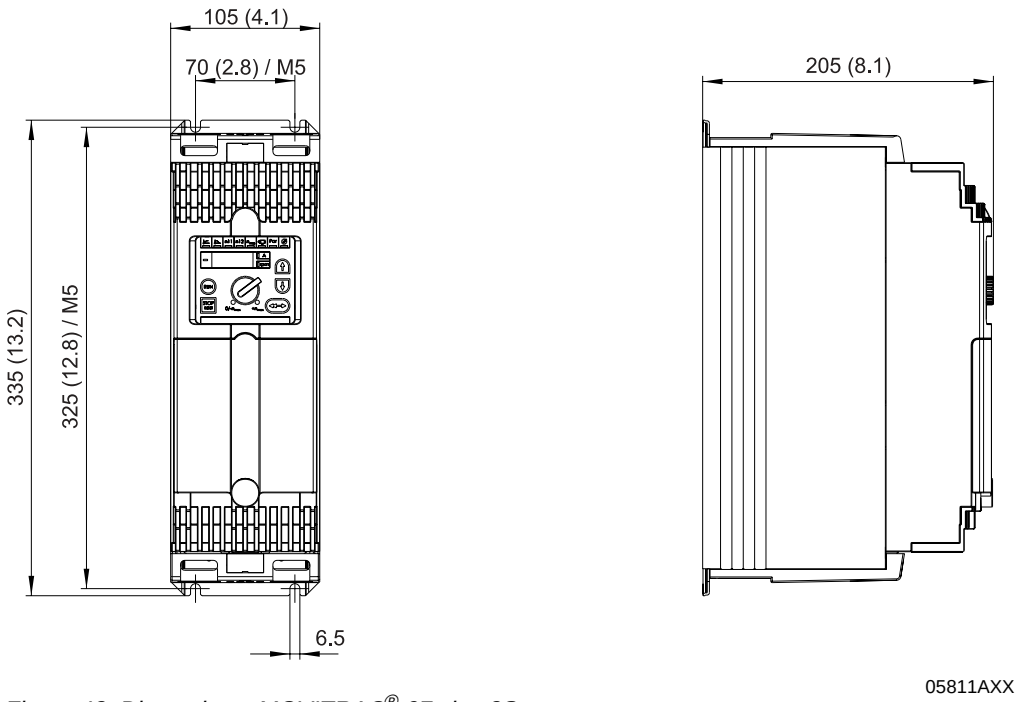

Figure 43: Dimensions, MOVITRAC® 07 size 2S

Provide 100 mm (4 in) clearance above and below the unit to ensure adequate cooling! There is no need for clearance at the sides. You can line up the units directly next to one another. Make sure that the circulation of air is not disrupted by cables or other installation materials. Prevent the heated exhaust air from other units from blowing onto this unit.

400/500 V_{AC} / 3-phase / size 2 / 11 kW / 15 HP

Figure 44: MOVITRAC® 07 / size 2 / 3-phase 400/500 V_{AC}

MOVITRAC® 07A (3-phase supply system)		**110-5A3-4-..**
Part number		827 256 5
Part number with LOGODrive		827 301 4
INPUT		
Connection voltage Permitted range	V_{mains}	3 x 400 V_{AC} V_{mains} = 380 V_{AC} -10 % ... 500 V_{AC} +10 %
Supply frequency	f_{mains}	50/60 Hz +/-5 %
Rated system current, 3-phase at V_{mains} = 400 V_{AC}	100% I_{mains} 125% I_{mains}	21.6 A_{AC} 27.0 A_{AC}
OUTPUT		
Output voltage	V_N	3 x 0 ... V_{mains}
Recommended motor power under constant load (with V_{mains} = 400 V_{AC})	P_{mot}	11 kW 15 HP
Recommended motor power under variable torque load or constant load without overload (with V_{mains} = 400 V_{AC})	P_{mot}	15 kW 20 HP
Rated output current at V_{mains} = 400 V_{AC}	I_N	24 A_{AC}
Minimum permitted braking resistor value (4-Q operation)	R_{BWmin}	47 Ω

MOVITRAC® 07A (3-phase supply system)		110-5A3-4-..
GENERAL		
Power loss at I_N	P_V	400 W
Current limitation		125 % I_N continuous duty (fan/pump operation) 150 % I_N for maximum 60 seconds
PWM frequency	f_{PWM}	4 / 8 / 12 / 16 kHz
Speed range Resolution	n_A Δn_A	0 ... 5500 rpm 1 rpm
Connections	Terminals	4 mm^2
Dimensions	W x H x D	130 x 335 x 196 mm 5.1 x 13.2 x 7.7 in
Weight	m	6.6 kg 14.6 lb

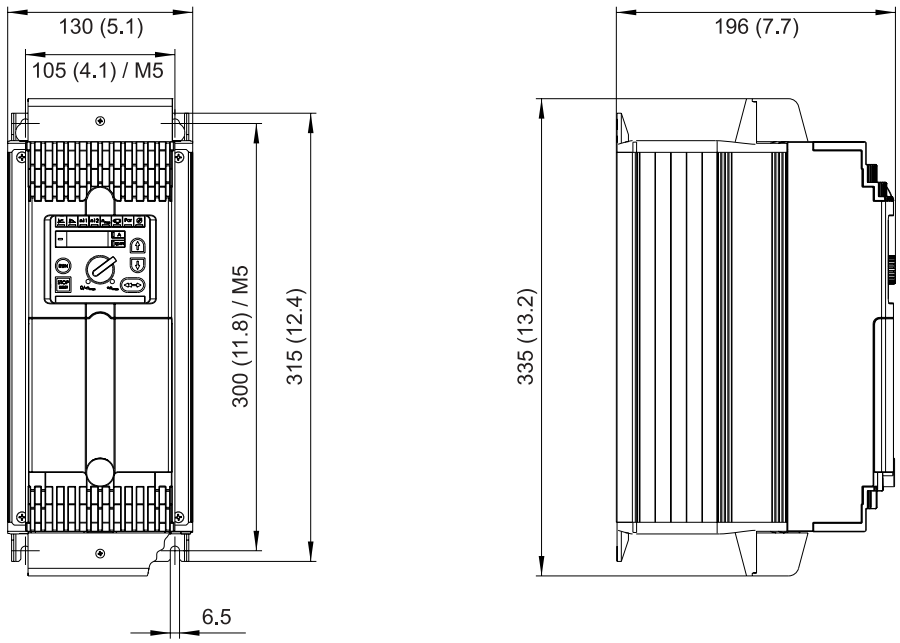

Figure 45: Dimensions, MOVITRAC® 07 size 2

Provide 100 mm (4 in) clearance above and below the unit to ensure adequate cooling! There is no need for clearance at the sides. You can line up the units directly next to one another. Make sure that the circulation of air is not disrupted by cables or other installation materials. Prevent the heated exhaust air from other units from blowing onto this unit.

400/500 V_{AC} / 3-phase / size 3 / 15 ... 30 kW / 20 ... 40 HP

Figure 46: MOVITRAC® 07 / size 3 / 3-phase 400/500 V_{AC}

MOVITRAC® 07 (3-phase supply system)		**150-503-4-..**	**220-503-4-..**	**300-503-4-..**
Part number		827 257 3	827 258 1	827 259 x
Part number with LOGODrive		827 302 2	827 303 0	827 304 9
INPUT				
Connection voltage Permitted range	V_{mains}	3 x 400 V_{AC} V_{mains} = 380 V_{AC} -10 % ... 500 V_{AC} +10 %		
Supply frequency	f_{mains}	50/60 Hz +/-5 %		
Rated system current, 3-phase at V_{mains} = 400 V_{AC}	100% I_{mains} 125% I_{mains}	28.8 A_{AC} 36.0 A_{AC}	41.4 A_{AC} 51.7 A_{AC}	54.0 A_{AC} 67.5 A_{AC}
OUTPUT				
Output voltage	V_N	3 x 0 ... V_{mains}		
Recommended motor power under constant load (with V_{mains} = 400 V_{AC})	P_{mot}	15 kW 20 HP	22 kW 30 HP	30 kW 40 HP
Recommended motor power under variable torque load or constant load without overload (with V_{mains} = 400 V_{AC})	P_{mot}	22 kW 30 HP	30 kW 40 HP	37 kW 50 HP
Rated output current at V_{mains} = 400 V_{AC}	I_N	32 A_{AC}	46 A_{AC}	60 A_{AC}
Minimum permitted braking resistor value (4-Q operation)	R_{BWmin}	15 Ω		12 Ω

MOVITRAC® 07 (3-phase supply system)		150-503-4-..	220-503-4-..	300-503-4-..
GENERAL				
Power loss at I_N	P_V	550 W	750 W	950 W
Current limitation		125 % I_N continuous duty (fan/pump operation) 150 % I_N for maximum 60 seconds		
PWM frequency	f_{PWM}	4 / 8 / 12 / 16 kHz		
Speed range Resolution	n_A Δn_A	0 ... 5500 rpm 1 rpm		
Connections	Terminals	6 mm^2	10 mm^2	16 mm^2
Dimensions	W x H x D	200 x 465 x 218 mm 7.9 x 18.3 x 8.6 in		
Weight	m	15 kg 33.1 lb		

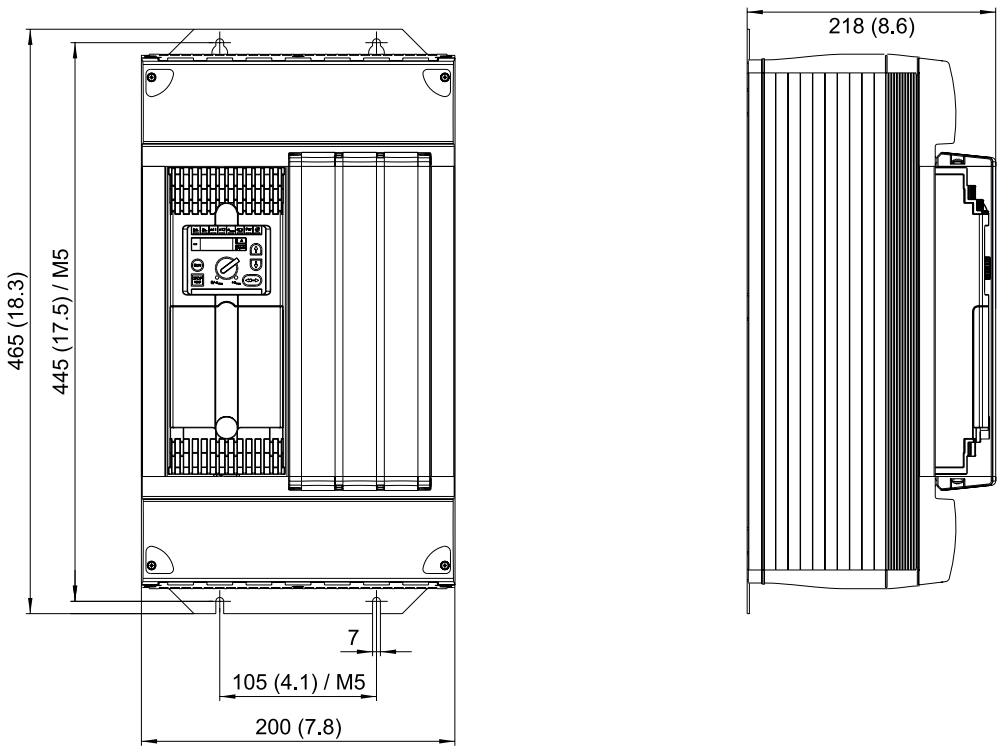

Figure 47: Dimensions, MOVITRAC® 07 size 3

Provide 100 mm (4 in) clearance above and below the unit to ensure adequate cooling! There is no need for clearance at the sides. You can line up the units directly next to one another. Make sure that the circulation of air is not disrupted by cables or other installation materials. Prevent the heated exhaust air from other units from blowing onto this unit.

MOVITRAC® 07 sizes 0S, 0M, 0L for DIN rail mounting (optional accessory)

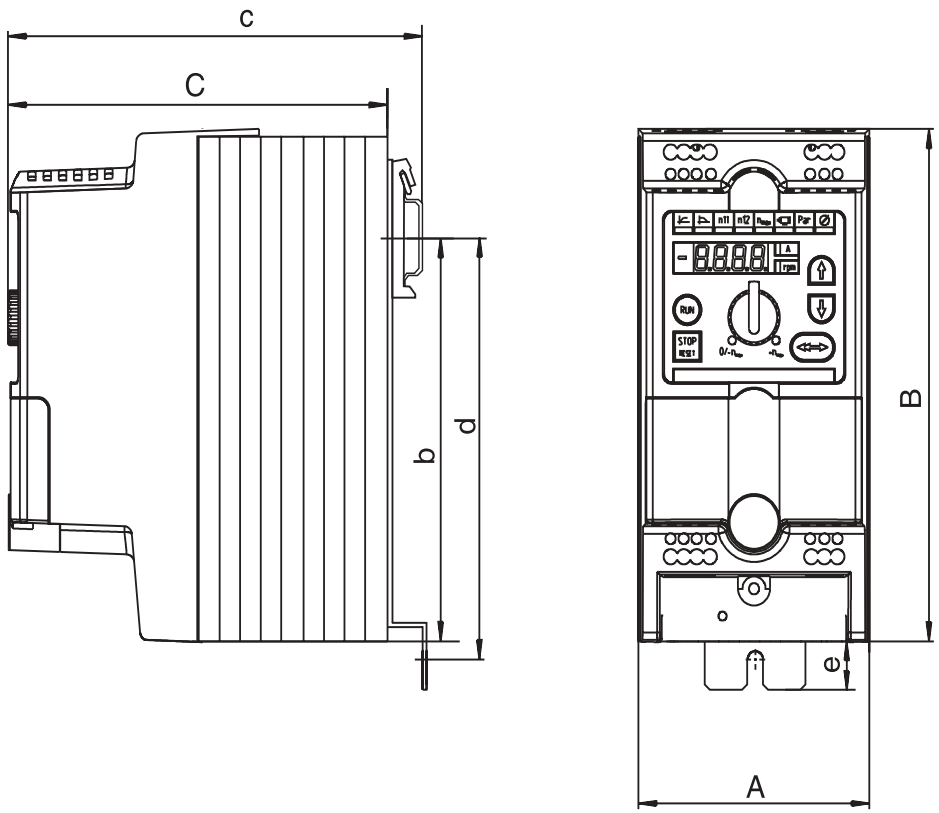

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Figure 48: MOVITRAC® 07 dimensions for DIN rail mounting (optional accessory)

MOVITRAC® 07	230 V_{AC}	004	005	008	011	015	022
Dimensions	A x B x C	90 x 185 x 150 mm 3.5 x 7.2 x 5.9 in			90 x 295 x 150 mm 3.5 x 9.5 x 5.9 in		
Mounting	b / c / d / e	141 mm / 162 mm / 152 mm (M4) / 14.75 mm 5.6 in / 6.4 in / 6.0 in (M4) / 0.6 in			250 mm / 162 mm / 261 mm (M4) / 14.75 mm 9.8 in / 6.4 in / 10.3 in (M4) / 0.6 in		
Size		0S			0L		

MOVITRAC® 07	400/500 V_{AC}	005	008	011	015	022	030	040
Dimensions	A x B x C	90 x 245 x 150 mm 3.5 x 9.7 x 5.9 in			90 x 295 x 150 mm 3.5 x 9.5 x 5.9 in			
Mounting	b / c / d / e	200 mm / 162 mm / 211 mm (M4) / 14.75 mm 7.9 in / 8.7 in / 8.3 in (M4) / 0.6 in			250 mm / 162 mm / 261 mm (M4) / 14.75 mm 9.8 in / 6.4 in / 10.3 in (M4) / 0.6 in			
Size		0M			0L			

8 Change Index

The text has been completely revised and the layout adapted. The following changes were implemented in the respective sections.

Technical Data

- Information on long-term storage.
- Overview of the different series.
- Assignment of dimension sheetes to data tables.
- Information on minimum permitted braking resistor.
- Information on air circulation.

9 Index

Address List

Germany			
Headquarters **Production** **Sales** **Service**	**Bruchsal**	SEW-EURODRIVE GmbH & Co KG Ernst-Blickle-Straße 42 D-76646 Bruchsal P.O. Box Postfach 3023 · D-76642 Bruchsal	Tel. +49 7251 75-0 Fax +49 7251 75-1970 http://www.sew-eurodrive.de sew@sew-eurodrive.de Service Electronics: Tel. +49 171 7210791 Service Gear Units and Motors: Tel. +49 172 7601377
Assembly **Service**	**Garbsen** (near Hannover)	SEW-EURODRIVE GmbH & Co KG Alte Ricklinger Straße 40-42 D-30823 Garbsen P.O. Box Postfach 110453 · D-30804 Garbsen	Tel. +49 5137 8798-30 Fax +49 5137 8798-55 scm-garbsen@sew-eurodrive.de
	Kirchheim (near München)	SEW-EURODRIVE GmbH & Co KG Domagkstraße 5 D-85551 Kirchheim	Tel. +49 89 909552-10 Fax +49 89 909552-50 scm-kirchheim@sew-eurodrive.de
	Langenfeld (near Düsseldorf)	SEW-EURODRIVE GmbH & Co KG Siemensstraße 1 D-40764 Langenfeld	Tel. +49 2173 8507-30 Fax +49 2173 8507-55 scm-langenfeld@sew-eurodrive.de
	Meerane (near Zwickau)	SEW-EURODRIVE GmbH & Co KG Dänkritzer Weg 1 D-08393 Meerane	Tel. +49 3764 7606-0 Fax +49 3764 7606-30 scm-meerane@sew-eurodrive.de
	Additional addresses for service in Germany provided on request!		

France			
Production **Sales** **Service**	**Haguenau**	SEW-USOCOME 48-54, route de Soufflenheim B. P. 185 F-67506 Haguenau Cedex	Tel. +33 3 88 73 67 00 Fax +33 3 88 73 66 00 http://www.usocome.com sew@usocome.com
Assembly **Sales** **Service**	**Bordeaux**	SEW-USOCOME Parc d'activités de Magellan 62, avenue de Magellan - B. P. 182 F-33607 Pessac Cedex	Tel. +33 5 57 26 39 00 Fax +33 5 57 26 39 09
	Lyon	SEW-USOCOME Parc d'Affaires Roosevelt Rue Jacques Tati F-69120 Vaulx en Velin	Tel. +33 4 72 15 37 00 Fax +33 4 72 15 37 15
	Paris	SEW-USOCOME Zone industrielle 2, rue Denis Papin F-77390 Verneuil l'Etang	Tel. +33 1 64 42 40 80 Fax +33 1 64 42 40 88
	Additional addresses for service in France provided on request!		

Algeria			
Sales	**Alger**	Réducom 16, rue des Frères Zaghnoun Bellevue El-Harrach 16200 Alger	Tel. +213 21 8222-84 Fax +213 21 8222-84

Argentina			
Assembly **Sales** **Service**	**Buenos Aires**	SEW EURODRIVE ARGENTINA S.A. Centro Industrial Garin, Lote 35 Ruta Panamericana Km 37,5 1619 Garin	Tel. +54 3327 4572-84 Fax +54 3327 4572-21 sewar@sew-eurodrive.com.ar

Australia			
Assembly **Sales** **Service**	**Melbourne**	SEW-EURODRIVE PTY. LTD. 27 Beverage Drive Tullamarine, Victoria 3043	Tel. +61 3 9933-1000 Fax +61 3 9933-1003 http://www.sew-eurodrive.com.au enquires@sew-eurodrive.com.au
	Sydney	SEW-EURODRIVE PTY. LTD. 9, Sleigh Place, Wetherill Park New South Wales, 2164	Tel. +61 2 9725-9900 Fax +61 2 9725-9905 enquires@sew-eurodrive.com.au

Austria			
Assembly **Sales** **Service**	**Wien**	SEW-EURODRIVE Ges.m.b.H. Richard-Strauss-Strasse 24 A-1230 Wien	Tel. +43 1 617 55 00-0 Fax +43 1 617 55 00-30 http://sew-eurodrive.at sew@sew-eurodrive.at

Belgium			
Assembly **Sales** **Service**	**Brüssel**	CARON-VECTOR S.A. Avenue Eiffel 5 B-1300 Wavre	Tel. +32 10 231-311 Fax +32 10 231-336 http://www.caron-vector.be info@caron-vector.be

Brazil			
Production **Sales** **Service**	**Sao Paulo**	SEW-EURODRIVE Brasil Ltda. Avenida Amâncio Gaiolli, 50 Caixa Postal: 201-07111-970 Guarulhos/SP - Cep.: 07251-250	Tel. +55 11 6489-9133 Fax +55 11 6480-3328 http://www.sew.com.br sew@sew.com.br
	Additional addresses for service in Brazil provided on request!		

Bulgaria			
Sales	**Sofia**	BEVER-DRIVE GMBH Bogdanovetz Str.1 BG-1606 Sofia	Tel. +359 (2) 9532565 Fax +359 (2) 9549345 bever@mbox.infotel.bg

Cameroon			
Sales	**Douala**	Electro-Services Rue Drouot Akwa B.P. 2024 Douala	Tel. +237 4322-99 Fax +237 4277-03

Canada			
Assembly **Sales** **Service**	**Toronto**	SEW-EURODRIVE CO. OF CANADA LTD. 210 Walker Drive Bramalea, Ontario L6T3W1	Tel. +1 905 791-1553 Fax +1 905 791-2999 http://www.sew-eurodrive.ca l.reynolds@sew-eurodrive.ca
	Vancouver	SEW-EURODRIVE CO. OF CANADA LTD. 7188 Honeyman Street Delta. B.C. V4G 1 E2	Tel. +1 604 946-5535 Fax +1 604 946-2513 b.wake@sew-eurodrive.ca
	Montreal	SEW-EURODRIVE CO. OF CANADA LTD. 2555 Rue Leger Street LaSalle, Quebec H8N 2V9	Tel. +1 514 367-1124 Fax +1 514 367-3677 a.peluso@sew-eurodrive.ca
	Additional addresses for service in Canada provided on request!		

Chile			
Assembly **Sales** **Service**	**Santiago de Chile**	SEW-EURODRIVE CHILE LTDA. Las Encinas 1295 Parque Industrial Valle Grande LAMPA RCH-Santiago de Chile P.O. Box Casilla 23 Correo Quilicura - Santiago - Chile	Tel. +56 2 75770-00 Fax +56 2 75770-01 sewsales@entelchile.net

China			
Production **Assembly** **Sales** **Service**	**Tianjin**	SEW-EURODRIVE (Tianjin) Co., Ltd. No. 46, 7th Avenue, TEDA Tianjin 300457	Tel. +86 22 25322612 Fax +86 22 25322611 http://www.sew.com.cn
Assembly **Sales** **Service**	**Suzhou**	SEW-EURODRIVE (Suzhou) Co., Ltd. 333, Suhong Middle Road Suzhou Industrial Park Jiangsu Province, 215021 P. R. China	Tel. +86 512 62581781 Fax +86 512 62581783 suzhou@sew.com.cn

Colombia			
Assembly **Sales** **Service**	**Bogotá**	SEW-EURODRIVE COLOMBIA LTDA. Calle 22 No. 132-60 Bodega 6, Manzana B Santafé de Bogotá	Tel. +57 1 54750-50 Fax +57 1 54750-44 sewcol@andinet.com

Croatia			
Sales **Service**	**Zagreb**	KOMPEKS d. o. o. PIT Erdödy 4 II HR 10 000 Zagreb	Tel. +385 1 4613-158 Fax +385 1 4613-158 kompeks@net.hr

Czech Republic			
Sales	**Praha**	SEW-EURODRIVE CZ S.R.O. Business Centrum Praha Luná 591 CZ-16000 Praha 6 - Vokovice	Tel. +420 220121234 + 220121236 Fax +420 220121237 http://www.sew-eurodrive.cz sew@sew-eurodrive.cz

Denmark			
Assembly **Sales** **Service**	**Kopenhagen**	SEW-EURODRIVEA/S Geminivej 28-30, P.O. Box 100 DK-2670 Greve	Tel. +45 43 9585-00 Fax +45 43 9585-09 http://www.sew-eurodrive.dk sew@sew-eurodrive.dk

Estonia			
Sales	**Tallin**	ALAS-KUUL AS Paldiski mnt.125 EE 0006 Tallin	Tel. +372 6593230 Fax +372 6593231

Finland			
Assembly **Sales** **Service**	**Lahti**	SEW-EURODRIVE OY Vesimäentie 4 FIN-15860 Hollola 2	Tel. +358 3 589-300 Fax +358 3 7806-211 http://www.sew-eurodrive.fi sew@sew-eurodrive.fi

Gabon			
Sales	**Libreville**	Electro-Services B.P. 1889 Libreville	Tel. +241 7340-11 Fax +241 7340-12

Great Britain			
Assembly **Sales** **Service**	**Normanton**	SEW-EURODRIVE Ltd. Beckbridge Industrial Estate P.O. Box No.1 GB-Normanton, West- Yorkshire WF6 1QR	Tel. +44 1924 893-855 Fax +44 1924 893-702 http://www.sew-eurodrive.co.uk info@sew-eurodrive.co.uk

Greece			
Sales **Service**	**Athen**	Christ. Boznos & Son S.A. 12, Mavromichali Street P.O. Box 80136, GR-18545 Piraeus	Tel. +30 2 1042 251-34 Fax +30 2 1042 251-59 http://www.boznos.gr Boznos@otenet.gr

Hong Kong			
Assembly **Sales** **Service**	**Hong Kong**	SEW-EURODRIVE LTD. Unit No. 801-806, 8th Floor Hong Leong Industrial Complex No. 4, Wang Kwong Road Kowloon, Hong Kong	Tel. +852 2 7960477 + 79604654 Fax +852 2 7959129 sew@sewhk.com

Hungary			
Sales **Service**	**Budapest**	SEW-EURODRIVE Kft. H-1037 Budapest Kunigunda u. 18	Tel. +36 1 437 06-58 Fax +36 1 437 06-50 sew-eurodrive.voros@matarnet.hu

India			
Assembly **Sales** **Service**	**Baroda**	SEW-EURODRIVE India Pvt. Ltd. Plot No. 4, Gidc Por Ramangamdi · Baroda - 391 243 Gujarat	Tel. +91 265 2831021 Fax +91 265 2831087 sew.baroda@gecsl.com
Technical Offices	**Bangalore**	SEW-EURODRIVE India Private Limited 308, Prestige Centre Point 7, Edward Road Bangalore	Tel. +91 80 22266565 Fax +91 80 22266569 sewbangalore@sify.com
	Mumbai	SEW-EURODRIVE India Private Limited 312 A, 3rd Floor, Acme Plaza Andheri Kurla Road, Andheri (E) Mumbai	Tel. +91 22 28348440 Fax +91 22 28217858 sewmumbai@vsnl.net

Ireland			
Sales **Service**	**Dublin**	Alperton Engineering Ltd. 48 Moyle Road Dublin Industrial Estate Glasnevin, Dublin 11	Tel. +353 1 830-6277 Fax +353 1 830-6458

Italy			
Assembly **Sales** **Service**	**Milano**	SEW-EURODRIVE di R. Blickle & Co.s.a.s. Via Bernini,14 I-20020 Solaro (Milano)	Tel. +39 2 96 9801 Fax +39 2 96 799781 sewit@sew-eurodrive.it

Ivory Coast			
Sales	**Abidjan**	SICA Ste industrielle et commerciale pour l'Afrique 165, Bld de Marseille B.P. 2323, Abidjan 08	Tel. +225 2579-44 Fax +225 2584-36

Japan			
Assembly **Sales** **Service**	**Toyoda-cho**	SEW-EURODRIVE JAPAN CO., LTD 250-1, Shimoman-no, Toyoda-cho, Iwata gun Shizuoka prefecture, 438-0818	Tel. +81 538 373811 Fax +81 538 373814 sewjapan@sew-eurodrive.co.jp

Korea			
Assembly **Sales** **Service**	**Ansan-City**	SEW-EURODRIVE KOREA CO., LTD. B 601-4, Banweol Industrial Estate Unit 1048-4, Shingil-Dong Ansan 425-120	Tel. +82 31 492-8051 Fax +82 31 492-8056 master@sew-korea.co.kr

Lebanon			
Sales	**Beirut**	Gabriel Acar & Fils sarl B. P. 80484 Bourj Hammoud, Beirut	Tel. +961 1 4947-86 +961 1 4982-72 +961 3 2745-39 Fax +961 1 4949-71 gacar@beirut.com

Luxembourg			
Assembly **Sales** **Service**	**Brüssel**	CARON-VECTOR S.A. Avenue Eiffel 5 B-1300 Wavre	Tel. +32 10 231-311 Fax +32 10 231-336 http://www.caron-vector.be info@caron-vector.be

Macedonia			
Sales	**Skopje**	SGS-Skopje / Macedonia "Teodosij Sinactaski" 66 91000 Skopje / Macedonia	Tel. +389 2 385 466 Fax +389 2 384 390 sgs@mol.com.mk

Malaysia			
Assembly **Sales** **Service**	**Johore**	SEW-EURODRIVE SDN BHD No. 95, Jalan Seroja 39, Taman Johor Jaya 81000 Johor Bahru, Johor West Malaysia	Tel. +60 7 3549409 Fax +60 7 3541404 kchtan@pd.jaring.my

Morocco			
Sales	**Casablanca**	S. R. M. Société de Réalisations Mécaniques 5, rue Emir Abdelkader 05 Casablanca	Tel. +212 2 6186-69 + 6186-70 + 6186-71 Fax +212 2 6215-88 srm@marocnet.net.ma

Netherlands			
Assembly **Sales** **Service**	**Rotterdam**	VECTOR Aandrijftechniek B.V. Industrieweg 175 NL-3044 AS Rotterdam Postbus 10085 NL-3004 AB Rotterdam	Tel. +31 10 4463-700 Fax +31 10 4155-552 http://www.vector.nu info@vector.nu

New Zealand			
Assembly **Sales** **Service**	**Auckland**	SEW-EURODRIVE NEW ZEALAND LTD. P.O. Box 58-428 82 Greenmount drive East Tamaki Auckland	Tel. +64 9 2745627 Fax +64 9 2740165 sales@sew-eurodrive.co.nz
	Christchurch	SEW-EURODRIVE NEW ZEALAND LTD. 10 Settlers Crescent, Ferrymead Christchurch	Tel. +64 3 384-6251 Fax +64 3 385-6455 sales@sew-eurodrive.co.nz

Norway			
Assembly **Sales** **Service**	**Moss**	SEW-EURODRIVE A/S Solgaard skog 71 N-1599 Moss	Tel. +47 69 241-020 Fax +47 69 241-040 sew@sew-eurodrive.no

Peru			
Assembly **Sales** **Service**	**Lima**	SEW DEL PERU MOTORES REDUCTORES S.A.C. Los Calderos # 120-124 Urbanizacion Industrial Vulcano, ATE, Lima	Tel. +51 1 3495280 Fax +51 1 3493002 sewperu@terra.com.pe

Poland			
Assembly **Sales** **Service**	**Lodz**	SEW-EURODRIVE Polska Sp.z.o.o. ul. Techniczna 5 PL-92-518 Lodz	Tel. +48 42 67710-90 Fax +48 42 67710-99 http://www.sew-eurodrive.pl sew@sew-eurodrive.pl

Portugal			
Assembly **Sales** **Service**	**Coimbra**	SEW-EURODRIVE, LDA. Apartado 15 P-3050-901 Mealhada	Tel. +351 231 20 9670 Fax +351 231 20 3685 http://www.sew-eurodrive.pt infosew@sew-eurodrive.pt

Romania			
Sales **Service**	**Bucuresti**	Sialco Trading SRL str. Madrid nr.4 71222 Bucuresti	Tel. +40 21 230-1328 Fax +40 21 230-7170 sialco@sialco.ro

Russia			
Sales	**St. Petersburg**	ZAO SEW-EURODRIVE P.O. Box 263 RUS-195220 St. Petersburg	Tel. +7 812 5357142 +812 5350430 Fax +7 812 5352287 sew@sew-eurodrive.ru

Senegal			
Sales	**Dakar**	SENEMECA Mécanique Générale Km 8, Route de Rufisque B.P. 3251, Dakar	Tel. +221 849 47-70 Fax +221 849 47-71 senemeca@sentoo.sn

Singapore			
Assembly **Sales** **Service**	**Singapore**	SEW-EURODRIVE PTE. LTD. No 9, Tuas Drive 2 Jurong Industrial Estate Singapore 638644	Tel. +65 68621701 ... 1705 Fax +65 68612827 Telex 38 659 sales@sew-eurodrive.com.sg

Slovenia			
Sales **Service**	**Celje**	Pakman - Pogonska Tehnika d.o.o. UI. XIV. divizije 14 SLO – 3000 Celje	Tel. +386 3 490 83-20 Fax +386 3 490 83-21 pakman@siol.net

South Africa			
Assembly **Sales** **Service**	**Johannesburg**	SEW-EURODRIVE (PROPRIETARY) LIMITED Eurodrive House Cnr. Adcock Ingram and Aerodrome Roads Aeroton Ext. 2 Johannesburg 2013 P.O.Box 90004 Bertsham 2013	Tel. +27 11 248-7000 Fax +27 11 494-2311 ljansen@sew.co.za
	Capetown	SEW-EURODRIVE (PROPRIETARY) LIMITED Rainbow Park Cnr. Racecourse & Omuramba Road Montague Gardens Cape Town P.O.Box 36556 Chempet 7442 Cape Town	Tel. +27 21 552-9820 Fax +27 21 552-9830 Telex 576 062 dswanepoel@sew.co.za
	Durban	SEW-EURODRIVE (PROPRIETARY) LIMITED 2 Monaceo Place Pinetown Durban P.O. Box 10433, Ashwood 3605	Tel. +27 31 700-3451 Fax +27 31 700-3847 dtait@sew.co.za

Spain			
Assembly **Sales** **Service**	**Bilbao**	SEW-EURODRIVE ESPAÑA, S.L. Parque Tecnológico, Edificio, 302 E-48170 Zamudio (Vizcaya)	Tel. +34 9 4431 84-70 Fax +34 9 4431 84-71 sew.spain@sew-eurodrive.es

Sweden			
Assembly **Sales** **Service**	**Jönköping**	SEW-EURODRIVE AB Gnejsvägen 6-8 S-55303 Jönköping Box 3100 S-55003 Jönköping	Tel. +46 36 3442-00 Fax +46 36 3442-80 http://www.sew-eurodrive.se info@sew-eurodrive.se

Switzerland			
Assembly **Sales** **Service**	**Basel**	Alfred Imhof A.G. Jurastrasse 10 CH-4142 Münchenstein bei Basel	Tel. +41 61 41717-17 Fax +41 61 41717-00 http://www.imhof-sew.ch info@imhof-sew.ch

Thailand			
Assembly **Sales** **Service**	**Chon Buri**	SEW-EURODRIVE (Thailand) Ltd. Bangpakong Industrial Park 2 700/456, Moo.7, Tambol Donhuaroh Muang District Chon Buri 20000	Tel. +66 38 454281 Fax +66 38 454288 sewthailand@sew-eurodrive.co.th

Tunisia			
Sales	**Tunis**	T. M.S. Technic Marketing Service 7, rue Ibn EI Heithem Z.I. SMMT 2014 Mégrine Erriadh	Tel. +216 1 4340-64 + 1 4320-29 Fax +216 1 4329-76

Turkey			
Assembly **Sales** **Service**	**Istanbul**	SEW-EURODRIVE Hareket Sistemleri Sirketi Bagdat Cad. Koruma Cikmazi No. 3 TR-81540 Maltepe ISTANBUL	Tel. +90 216 4419163 + 216 4419164 + 216 3838014 Fax +90 216 3055867 sew@sew-eurodrive.com.tr

USA			
Production **Assembly** **Sales** **Service**	**Greenville**	SEW-EURODRIVE INC. 1295 Old Spartanburg Highway P.O. Box 518 Lyman, S.C. 29365	Tel. +1 864 439-7537 Fax Sales +1 864 439-7830 Fax Manuf. +1 864 439-9948 Fax Ass. +1 864 439-0566 Telex 805 550 http://www.seweurodrive.com cslyman@seweurodrive.com
Assembly **Sales** **Service**	**San Francisco**	SEW-EURODRIVE INC. 30599 San Antonio St. Hayward, California 94544-7101	Tel. +1 510 487-3560 Fax +1 510 487-6381 cshayward@seweurodrive.com
	Philadelphia/PA	SEW-EURODRIVE INC. Pureland Ind. Complex 2107 High Hill Road, P.O. Box 481 Bridgeport, New Jersey 08014	Tel. +1 856 467-2277 Fax +1 856 467-3792 csbridgeport@seweurodrive.com
	Dayton	SEW-EURODRIVE INC. 2001 West Main Street Troy, Ohio 45373	Tel. +1 937 335-0036 Fax +1 937 440-3799 cstroy@seweurodrive.com
	Dallas	SEW-EURODRIVE INC. 3950 Platinum Way Dallas, Texas 75237	Tel. +1 214 330-4824 Fax +1 214 330-4724 csdallas@seweurodrive.com
	Additional addresses for service in the USA provided on request!		

Venezuela			
Assembly **Sales** **Service**	**Valencia**	SEW-EURODRIVE Venezuela S.A. Av. Norte Sur No. 3, Galpon 84-319 Zona Industrial Municipal Norte Valencia, Estado Carabobo	Tel. +58 241 832-9804 Fax +58 241 838-6275 sewventas@cantv.net sewfinanzas@cantv.net

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