SEW EURODRIVE

MOVITRAC® classic: Control encoderless motors

Control cabinet technology:
Frequency inverters

MOVITRAC® classic

Controls encoderless motors

This frequency inverter is ideal for materials handling and motion applications that utilize encoderless motors.
This dedicated solution for encoderless asynchronous and synchronous motors takes up minimal space in the control cabinet, while plug-in gateways make it an exceptionally flexible, open option for a variety of control systems.

Saves time

The frequency inverter is supplied fully configured for asynchronous motors ranging from 0.25 to 11 kW.
Unpack – connect – specify setpoint – motor runs

Compact design

Boasting compact dimensions thanks to its monolithic design, this frequency inverter takes up minimal space in the control cabinet.

Open solution

Simply choose the appropriate plug-in gateway to connect the frequency inverter to standard control systems – and that's it!

Optimized price

Thanks to its optimized price-performance ratio, this frequency inverter is an attractive option for numerous applications up to 11 kW.

Potential uses
for power ranges
from 0.25 to 11 kW

Hoists

MOVITRAC® classic is available with the integrated STO PL d safety function as an option.

Materials handing technology

MOVITRAC® classic features an integrated standby mode and optimized flux control.

Functions and features

MOVITRAC® classic
the dedicated solution for encoderless drives

The frequency inverter controls and monitors the torque and speed of synchronous and asynchronous AC motors without an encoder. Three control modes are available – V/f, VFC^{PLUS}, and ELSM®. Thanks to these state-of-the-art control modes, even energy-efficient IE5 motors can be operated.

The frequency inverter is very compact, thanks to its monolithic design, so it takes up minimal space in the control cabinet. A comprehensive range of accessories and options are available, including the STO safety function.

Just select the appropriate MOVIKIT® software module and the optimum inverter solution tailored to your application-specific requirements is ready for use. Parameterization requires minimal time and effort, and startup is quick and easy, achieved in just a few simple steps.

MOVITRAC® classic can be used worldwide – it has been granted certifications of conformity around the world, including CE (Europe), China RoHS, and cULus (USA and Canada).

www.sew-eurodrive.de/en/movitrac-classic

Plan – Connect – Move

When everything simply slots into place

Line connection
- 1 × AC 200 – 240 V
- 3 × AC 200 – 500 V
- Plug-in terminals
- Matched to power rating:
  - Line filters
  - Line chokes

More information: page 8

Operation
- Scalable keypads
- Diagnostic module and interface adapter

More information: pages 6 and 7

Communication
- Binary and analog inputs (spring-loaded terminals)
- PROFINET®
- EtherNet/IP™
- EtherCAT®/SBus^{PLUS}
- Modbus TCP

More information: page 12

Functional safety
- Safe stop function

More information: page 13

Software
- MOVISUITE® engineering software
- Preconfigured MOVIKIT® software modules

More information: pages 10 and 11

Motor connection
- Plug-in terminals
- Matched to power rating:
  - Output filters
  - Output chokes
  - Braking resistors including mounting panels

More information: page 8

Accessories and options

Operation / startup / front modules

CBG.. keypads

Four keypads are available that can be plugged into the inverter. The CBG01A, CBG11A, and CBG21A keypads can be used to start up the inverter, for example. The CBG22A keypad is used if customer-specific notifications from the higher-level controller need to be displayed. An in-door mounting frame is available for installations outside the control cabinet.

The CBG01A, CBG11A, and CBG21A keypads store the selected parameter and configuration settings – but they differ in terms of functionality and user experience, for example in display or installation features and language selection.

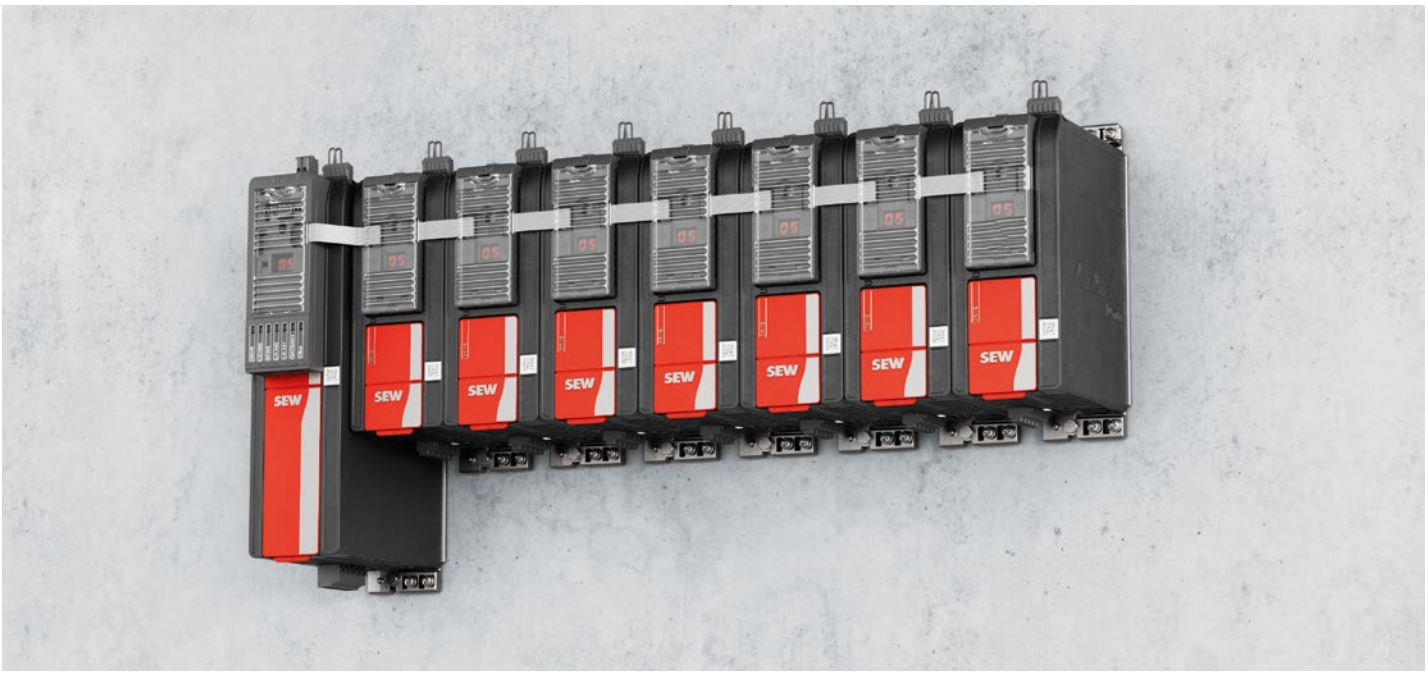
Appropriate scalable keypads are thus available to suit requirements.

Gateways and communication modules

CFX11A-.. gateways make it possible to connect the inverter to higher-level automation, project planning, and visualization systems. Use of the gateway enables direct communication with the inverters via PROFINET®, EtherCAT®/ SBus^{PLUS}*, EtherNet/IP™, or Modbus TCP.

Seven additional inverters can be connected to the gateway using the CFC11A communication module.
A ribbon cable for this connection is included in the scope of delivery. Thanks to cables that can only be fitted one way, the cabling process is fast and error-free.

* In preparation



1

2

3

4

5

Keypads / Diagnostic module

1 CBG01A
2 CBG11A
3 CBG21A
4 CBG22A
5 CDM11A

Diagnostic module CDM11A

The diagnostic module is the interface to the MOVISUITE® engineering software. It also contains two 7-segment displays for displaying the device status.

Mounting plates for space-saving mounting

Sub-mounting plates including a pre-installed braking resistor are available for both sizes 0S and 0L.
A shield plate extension makes it easy to install brake rectifiers or multi-level terminal blocks in a space-saving arrangement.

www.sew-eurodrive.de/
keypads

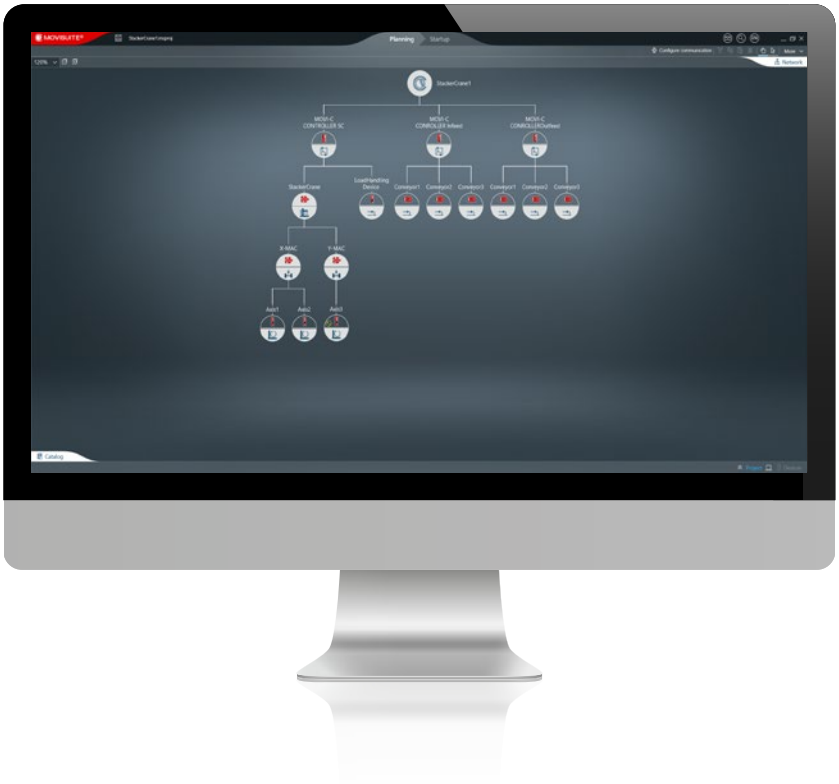
Technical data

Technical data	**Nominal power range**	– 1 AC × 200 – 240 V (0.25 – 3 kW) / sizes 0S, 0L – 3 AC × 200 – 500 V (0.25 – 11 kW) / sizes 0S, 0L
	Overload capacity	150%
Service and installation		– IoT product label for quick access to product data – Line and motor connection – plug-in terminals – Optimized control cabinet planning possible using online support tools, such as EPLAN data and product configurator
Energy efficiency		– Inverter meets the requirements of energy efficiency class IE2 according to the Ecodesign Regulation (EU) 2019/1781 – Energy-saving thanks to integrated standby mode and optimized flux control
Equipment		– Integrated sensor-free motor protection for asynchronous motors – Suitable for use in TN/TT and IT networks – Integrated category C2 EMC filter to EN 61800-3 – Design with coated PCB available – Mounting plates: - Sub-mounting plates for sizes 0S and 0L, with pre-installed braking resistor - Shield plate extension for space-saving installation of brake rectifiers or multi-level terminal blocks
Certifications/ conformity		MOVITRAC® classic control cabinet inverters have the necessary national product labeling. You can find the details on our “International regulations” web page. Drive electronics are subject to various functional / product-related requirements, depending on the country of use. You can also find these details on the same website.

www.sew-eurodrive.de/international-regulations

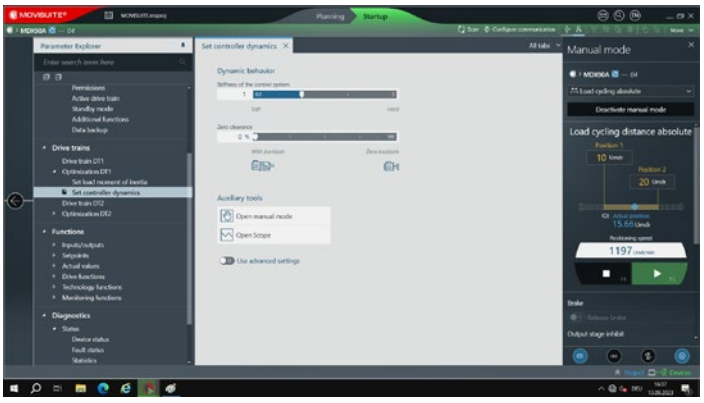
Software

MOVISUITE®
for engineering, diagnostics, startup, and operation



In the MOVI-C® modular automation system, MOVISUITE® engineering software is a central tool that can be used for all devices, including the MOVITRAC® classic inverter. In addition to startup, other functions such as drive diagnostics are available.

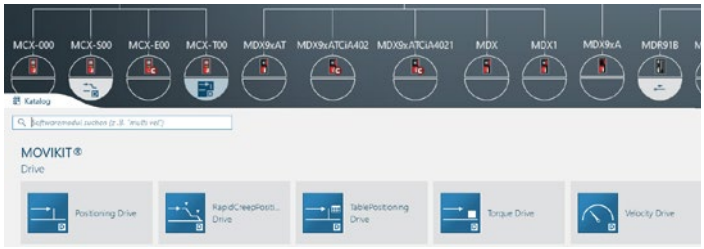
Primary focus: Minimizing time and costs for the user based on optimized user experience.



MOVISUITE® engineering software

www.sew-eurodrive.de/
engineeringsoftware-movisuite

MOVIKIT®
Parameterization instead of programming



Standardized MOVIKIT® software modules, which can be parameterized using graphical configuration and diagnostics, are available for the MOVITRAC® classic inverter to ensure fast startup of “its” area of operation, such as a conveyor belt or hoist.

MOVIKIT® software modules from the “Drive” category enable quick and convenient configuration of various applications – without the need for any programming knowledge whatsoever. The software modules run directly on the control cabinet inverters, with a connection to the higher-level controller, which reduces startup times considerably.

Examples:

MOVIKIT® startup software

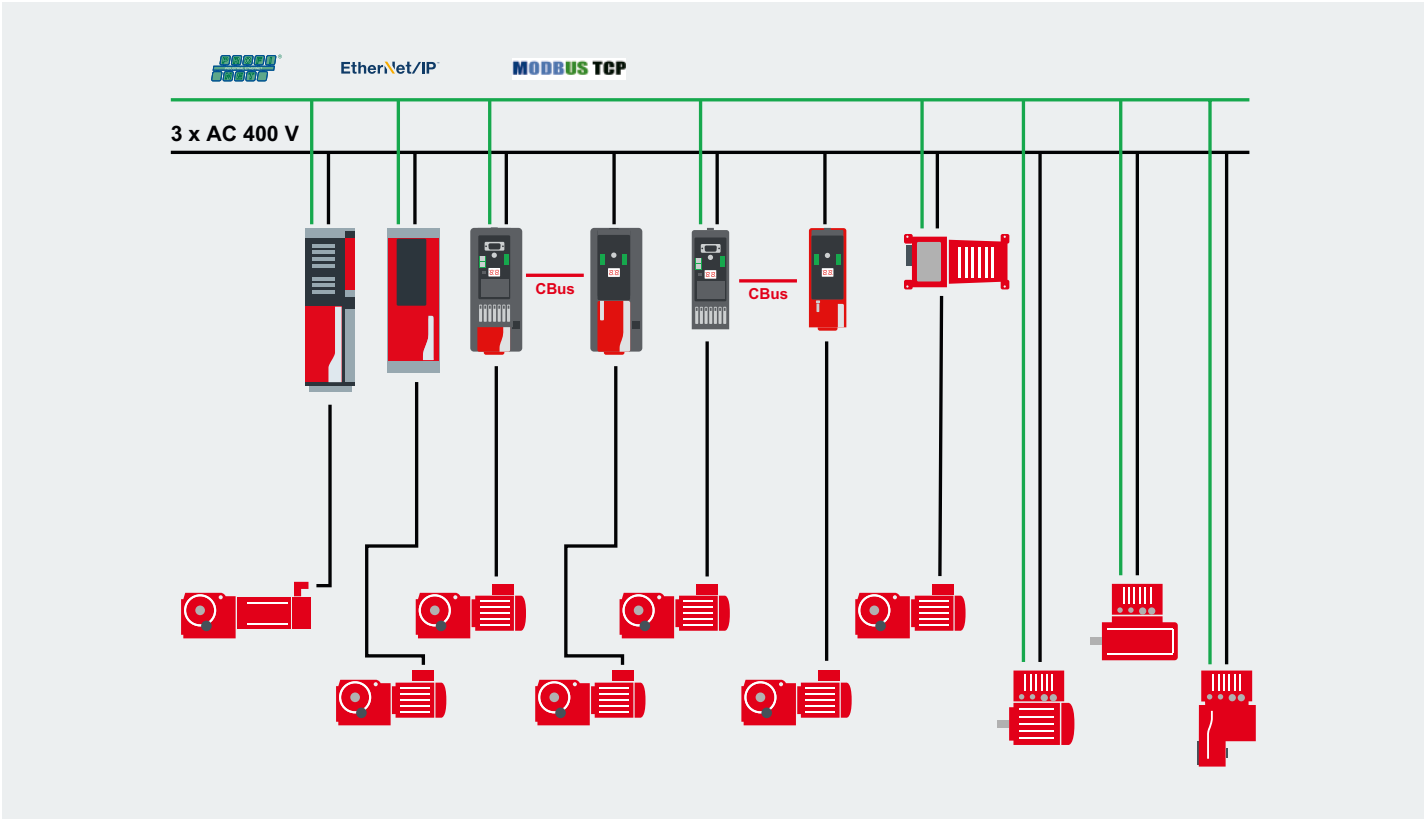
- **MOVIKIT® Velocity Drive:**
  MOVIKIT® Velocity Drive allows you to use applications with velocity control and a permanently defined fieldbus interface.

- **MOVIKIT® RapidCreepPositioning Drive:**
  MOVIKIT® RapidCreepPositioning Drive is a software module for implementing classic “rapid/creep speed positioning” without a motor encoder.

www.sew-eurodrive.de/en/movikit

Topologies and communication

MOVITRAC® classic can be connected to standard control systems and supports various fieldbus protocols.



Topology example: single axis automation

Thanks to the plug-in gateway, the frequency inverter can be integrated into machine or system layouts flexibly and with complete ease.

Reliable communication is assured.

Options
- Binary and analog inputs
- PROFINET
- EtherCAT®*/SBus^{PLUS}*
- EtherNet/IP™
- Modbus TCP

* In preparation

www.sew-eurodrive.de/topologies

Functional safety

STO – Safe Torque Off

STO* safety sub-function active

v = velocity (speed)

t = time

t_1 = time at which STO is activated

* STO corresponds to a non-controlled stop pursuant to EN 60204-1, stop category 0.

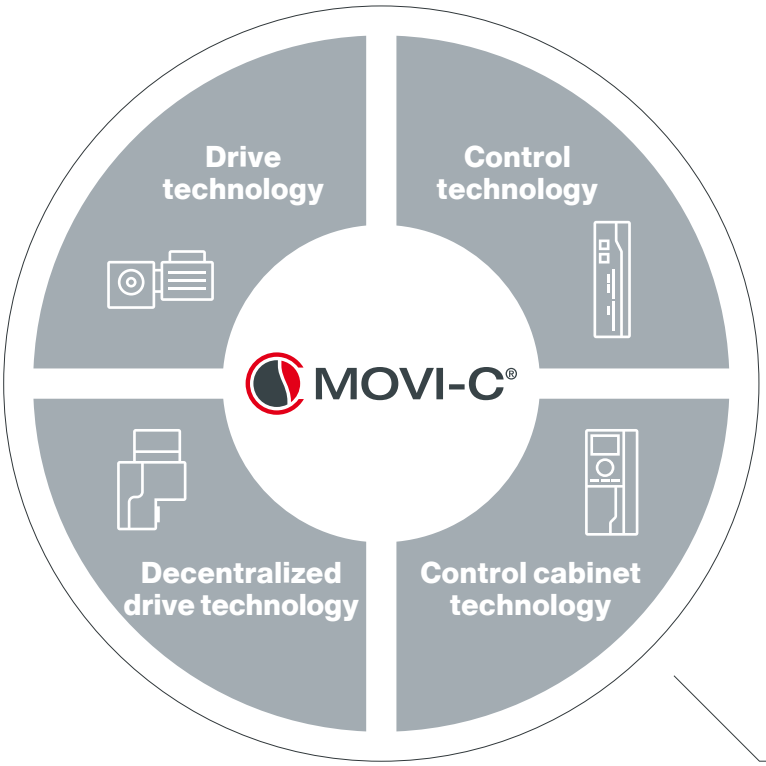
Keeping people, machinery, and systems safe does not need to be a complicated, time-consuming, or expensive affair.

The MOVISAFE® ../ CSO safety option for the STO PL d safe stop function can be integrated into the basic unit of the MOVITRAC® classic.

Simply activate the safe stop function (STO) and, if an emergency occurs, the motor power supply will be disconnected and the drive will be unable to generate torque.

MOVI-C®

The modular automation system
for complete solutions from a single source



MOVITRAC® classic is part of the MOVI-C® modular automation system

3 × 3 reasons to use MOVI-C®

Simplicity
THREE steps: Plan – Connect – Move

Future-proofing
THREE promises: Customized solutions – Today – and Tomorrow

Consulting and service
THREE success factors: Delivery capability – Consulting – Worldwide

www.sew-eurodrive.de/en/movi-c

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Discover a wide range of automation solutions with MOVI-C® on our website.

Or just talk directly to our experts on site – together we will find the right solution for your project.

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