MOVI-C® modular automation system for decentralized installations – portfolio overview

Consistent – connected – complete
The new product portfolio is based on the decentralized frequency inverter, which is the same for all products in the MOVI-C® range. The inverter can be both integrated into or installed close to the motor.

Highlights of the new decentralized product portfolio

| Consistency | MOVI-C® allows users to switch between control cabinet installation and decentralized installation. The consistency of the functions and features is not dependent on the product family or type of installation. |
| Modularity | An identical decentralized frequency inverter for all product families, regardless of whether it is integrated into the product or installed close to the motor, is the perfect complement to the control cabinet inverters of the MOVI-C® modular automation system. |
| Flexibility | The decentralized product portfolio provides flexible support for connections to various higher-level systems. |

Simple installation
On the supply side, installation is made easier using terminals or plug connectors, along with digital motor integration when installed close to the motor (single-cable technology).

Maximum energy efficiency
Combining the inverter with motors of any efficiency class means energy efficiency is scalable, e.g. MOVIGEAR® performance: highest energy efficiency class IE5 to IEC TS 60034-30-2 and system efficiency IES2 of the Power Drive System to IEC 61800-9-2.

Performance class of the decentralized frequency inverter
2 A, 2.5 A, 3.2 A, 4 A and 5.5 A
(7 A, 9.5 A, 12.5 A, 16 A in preparation)

Integrated, decentralized inverter

MOVIMOT® advanced
asynchronous motors (≈ IE3)
0.55 – 2.2 kW nominal power
(more sizes in preparation)

MOVIMOT® performance
Synchronous motors (≈ IE5)
4 – 9 Nm rated
torque classes
(more sizes in preparation)

MOVIGEAR® performance
Synchronous motors (≈ IE5)
0.8 – 2.2 kW nominal power
or 4 – 10 Nm rated
torque classes

Decentralized inverter installed close to motor

MOVIMOT® flexible
2 A – 5.5 A nominal
output current, up to 300% overload capacity (more sizes in preparation)

MMF1.
Additional designs in preparation

MMF3.
Can be combined with all SEW motors
Technical data

**MOVI-C® decentralized inverter**
Inverter that can be mounted close or directly on the motor in the field

**Size and power**
- Size 1: 2, 2.5, 3.2 A
- Size 2: 7 A, 9.5 A
- Size 1E: 4, 5.5 A
- Size 2E: 12.5 A, 16 A

**Overload capacity**
300%

**Communication versions**
- DFC – Direct Fieldbus Communication (PROFINET, EtherNet/IP™, Modbus TCP, POWERLINK/ CiA 402)
- DBC – Direct Binary Communication
- DAC – Direct AS-Interface Communication
- DSI – Direct System Bus Installation (EtherCAT® / SBus®/PLUS, EtherCAT® / CiA 402)

**Digital and analog inputs/outputs**
- DFC / DSI: Up to 4 digital inputs and up to 2 digital inputs or outputs
- For MMF3 only: Up to 8 digital inputs and up to 2 digital inputs or outputs
- DBC: 4 digital inputs / 1 relay output and 1 analog input
  - (0.10 V, 0..20 mA, 4..20 mA)
- DAC: 4 digital inputs / 1 relay output

**Options**
- Brake control
- CSBS51A (STO, SS1c) integrated safety technology

**MOVIGEAR® performance (IE5)**
Drive unit consisting of permanent magnet motor, gear unit and decentralized inverter

**Size and power**
- MGF..2-C: Torque class: 200 Nm, nominal power of up to 0.8 kW
- MGF..4-C: Torque class: 400 Nm, nominal power of up to 1.5 kW
- MGF..4-C/XT: Torque class: 400 Nm with extended continuous torque, nominal power of up to 2.1 kW

**Output speed range**
- Speed control range 1:40 (without encoder)
  - MGF..2-C: 0.9 – 593 min⁻¹
  - MGF..4-C/ MGF..4-C/XT: 0.9 – 566 min⁻¹

**Options**
- Multi-turn absolute encoder /AZ1Z (extended control range 1:2000)
- DynaStop® electrodynamic retarding function (/DSP)

**MOVIGEAR® classic (IE5)**
Drive unit consisting of gear unit and synchronous motor (can be combined with decentralized inverter installed close to the motor or with control cabinet technology from the MOVI-C® modular automation system)

**Size and power**
- MGF..1-DSM-C: 100 Nm torque class; nominal power of up to 0.4 kW
- MGF..2-DSM-C: 200 Nm torque class; nominal power of up to 0.9 kW
- MGF..4-DSM-C: 400 Nm torque class; nominal power of up to 2.1 kW
- MGF..4-DSM-C/XT: 400 Nm torque class with extended continuous torque; nominal power of up to 3 kW

**Output speed range**
(at \( n = 2000 \text{ min}^{-1} \))
- MGF..1-DSM-C: 35.7 – 555 min⁻¹
- MGF..2-DSM-C: 36.2 – 593 min⁻¹
- MGF..4-DSM-C/ MGF..4-DSM-C/XT: 35.4 – 566 min⁻¹

**MOVIMOT® flexible**
Decentralized inverter for installing close to the motor

**Size and power**
MOVIMOT® flexible is available in two versions and five performance classes:
- MMF1.: Nominal output currents 2.0, 2.5, and 3.2 A as well as 4.0 and 5.5 A (with cooling fins) for 0.55 – 3.0 kW performance classes (depending on motor type; up to 7.5 kW in preparation)
- MMF3.: Nominal output currents 2.0, 2.5, and 3.2 A as well as 4.0 and 5.5 A (with cooling fins) for 0.55 – 3.0 kW performance classes (depending on motor type; up to 7.5 kW in preparation)

**Options**
- Load disconnector or load disconnector with line protection
- M12 engineering interface or prepared for CBG21A keypad
- Key switch with feedback contact

**In preparation**
- MOVIMOT® advanced – drive unit consisting of asynchronous motor and integrated inverter
- MOVIMOT® performance – drive unit consisting of synchronous motor and integrated inverter