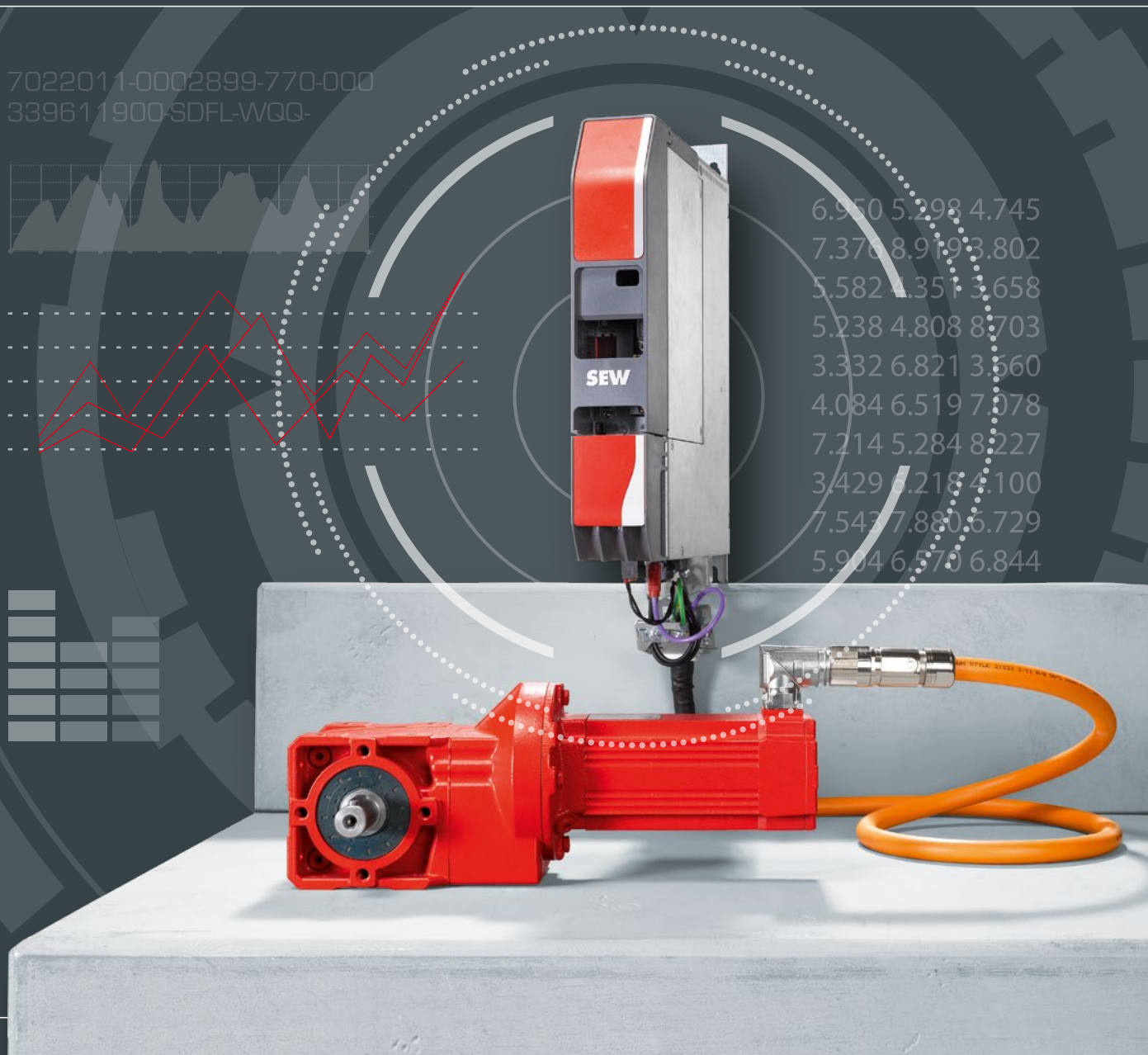
SEW EURODRIVE

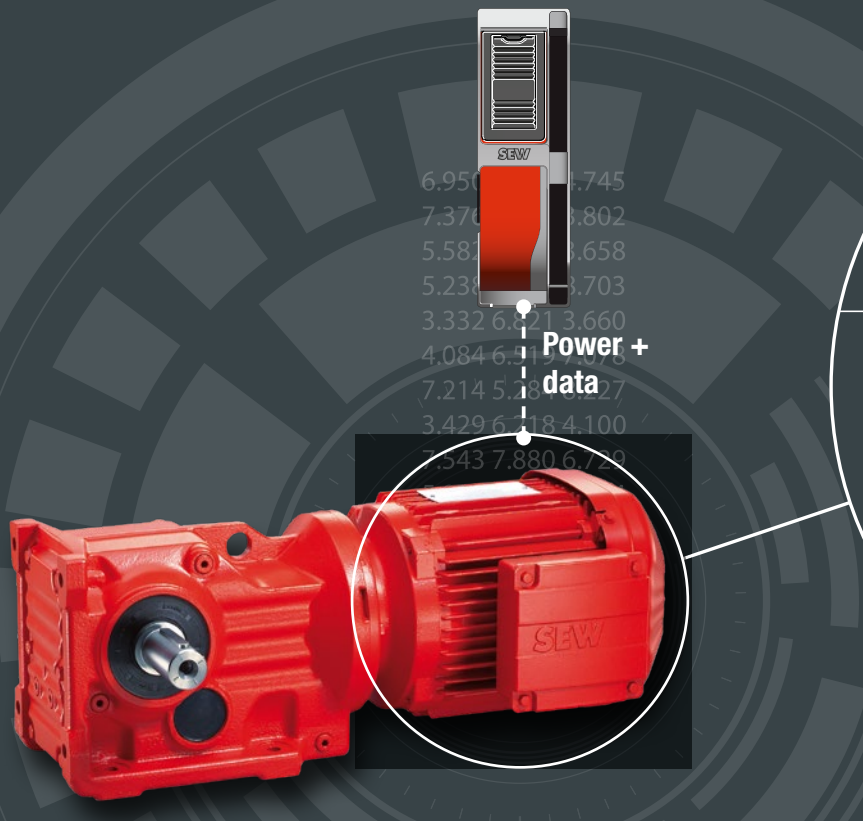
MOVI-C® goes DriveRadar®

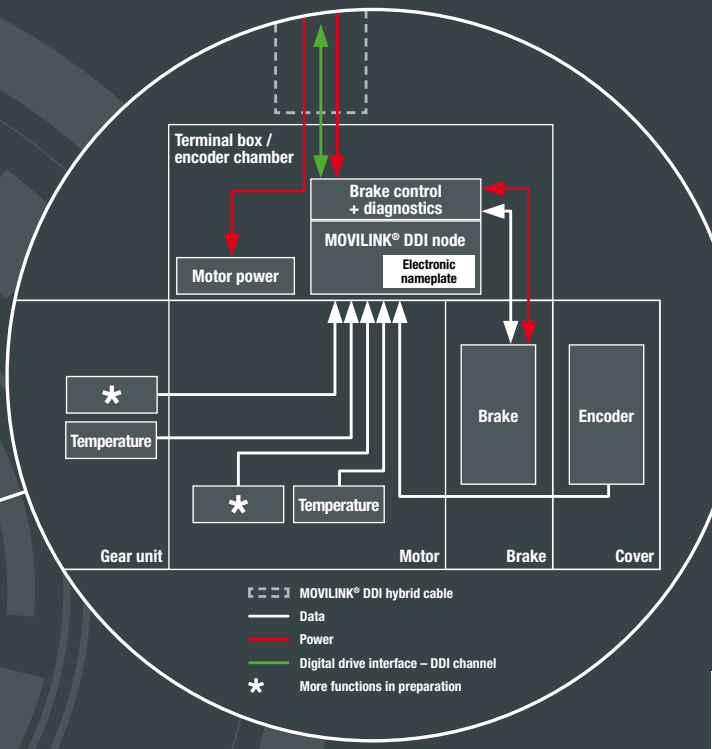
Digital motor integration with MOVILINK® DDI – enable connectivity and digitalization



Improving system availability with DriveRadar®

The umbrella brand DriveRadar® combines intelligent and scalable services for a smart, networked factory. Thanks to these services, users can monitor and analyze simple electromechanical components, individual process steps, or entire systems. This makes it possible to predict the condition of systems and schedule maintenance work. DriveRadar® significantly improves product and system availability (OEE). Drives need to communicate more to share and interpret information and data. This is exactly where digital motor integration comes in.





MOVILINK® DDI digitalizes drives

With MOVILINK® DDI – digital motor integration from the MOVI-C® modular automation concept – you can make functions your factory will need in the future a reality right now. The basis for this is our single-cable technology, which we use to connect drives to power and data.

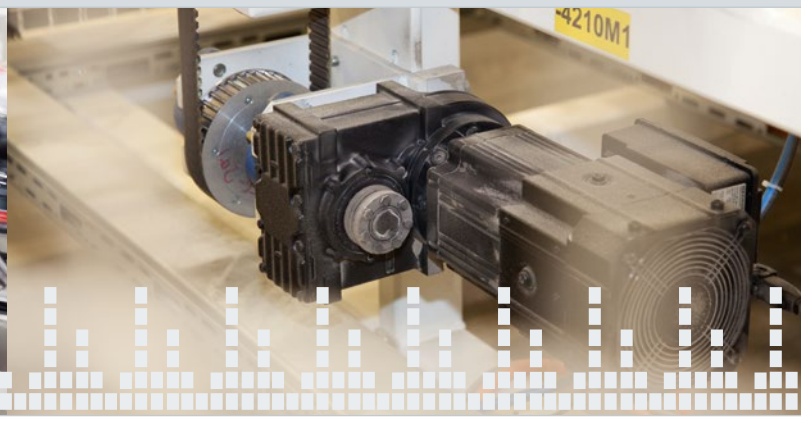
All inverters forming part of the MOVI-C® modular concept are equipped with MOVILINK® DDI communication technology. The drives are given a MOVILINK® DDI data node that acts as the digitalization hub. All communication between drive and inverter takes place via this data node, as does control of the numerous MOVILINK® DDI options.

MOVILINK® DDI – digital motor integration

Your benefits

- DriveRadar® from SEW-EURODRIVE is supported by a digitalized drive
- Connectivity system for motor, inverter, encoder, brake, sensor, and other options
- Optimized parts logistics
- A single cable for all motors and drives
- Significantly shorter installation times
- Plug & play thanks to automatic startup
- Electronic nameplate with digital twin
- Fully integrated motor temperature management
- Integrated connection of encoders in all performance classes
- Brake by wire – digital control of working and holding brakes*
- Direct monitoring of braking system wear*
- Optional condition monitoring integrated in motor*
- Intelligent self-diagnosis functions – from bearing monitoring to sensors for oil aging and mounting position*

* In preparation



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For more information about DriveRadar®, MOVILINK® DDI, and the extensive service and product portfolio, please visit www.sew-eurodrive.com

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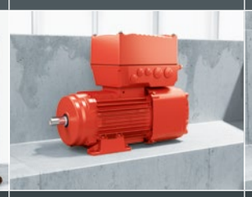
MOVI-C® with digital motor integration

MOVILINK® DDI – enable connectivity and digitalization

Frequency inverters

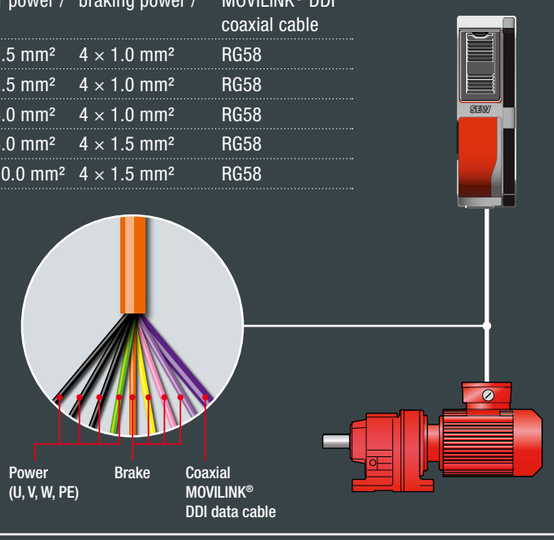
Control cabinet technology	MOVITRAC® advanced	MOVIDRIVE® system	MOVIDRIVE® technology	MOVIDRIVE® modular
	Planned 			
Brief description	Standard inverter for plant automation	Application inverter for single-axis automation in conjunction with MOVIDRIVE® modular	Application inverter for single-axis automation	Application inverter for multi-axis automation
Synchronous motor operation	✓	✓	✓	✓
Asynchronous motor operation	✓	✓	✓	✓
Power rating	0.25 – 315 kW	0.55 – 315 kW	0.55 – 315 kW	0.6 – 90 kW
I_{output}	1 – 588 A	2 – 588 A	2 – 588 A	2 – 180 A
AC supply voltage	3 × 380 – 500 V / 3 × 200 – 240 V / 1 × 200 – 240 V	3 × 380 – 500 V	3 × 380 – 500 V	3 × 380 – 500 V
Overload	150% for 30 s	200% for 3 s	200% for 3 s	250% for 1 s

Decentralized technology	MOVIMOT® flexible	MOVIMOT® advanced	MOVIMOT® performance	MOVIGEAR® performance
			Planned 	
Brief description	Decentralized inverter with field distributor function	Asynchronous motor with decentralized inverter	Synchronous motor with decentralized inverter	Drive unit consisting of synchronous motor, gear unit, and decentralized inverter
Synchronous motor operation	✓		✓	✓
Asynchronous motor operation	✓	✓		
Power rating	0.55 – 3 kW (depending on motor type; up to 7.5 kW in preparation)	0.37 – 2.2 kW (3 – 7.5 kW in preparation)		0.75 – 2.2 kW
I_{output}	2.0 – 5.5 A (7 – 16 A in preparation)			2.0 – 5.5 A
AC supply voltage	3 × 380 – 500 V			
Overload	Up to 300% for 5 s	Up to 210%	Up to 300% for 5 s	

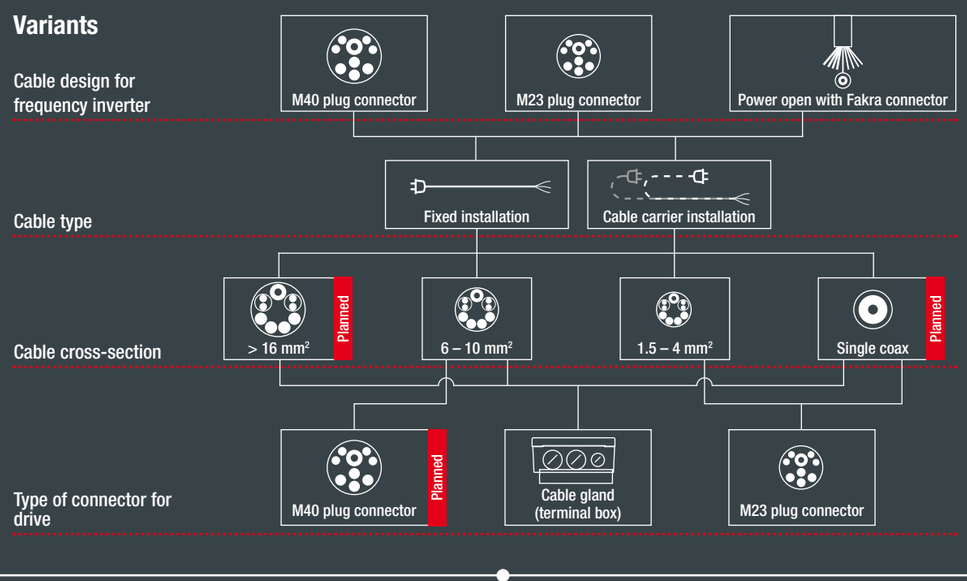
Connection technology

Single-cable technology – one cable (cable cross-section) can be used for all drives

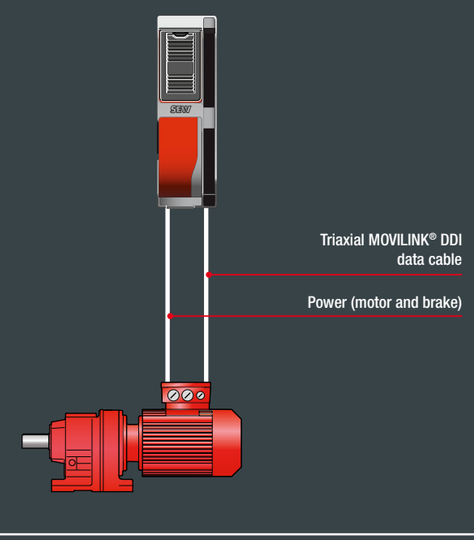
Hybrid cable with combination of motor power /	braking power /	MOVILINK® DDI coaxial cable
4 × 1.5 mm²	4 × 1.0 mm²	RG58
4 × 2.5 mm²	4 × 1.0 mm²	RG58
4 × 4.0 mm²	4 × 1.0 mm²	RG58
4 × 6.0 mm²	4 × 1.5 mm²	RG58
4 × 10.0 mm²	4 × 1.5 mm²	RG58



Variants



Multi-cable technology Planned



Motors

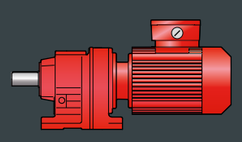
Asynchronous motors

DRN71 – 132S (– 315)	DR2.71 – 80 (– 225)

Sensor technology*: M, G, iB

Encoder: EI8Z, 12 bit; EK8Z, > 18 bit; AK8Z, > 18 bit; (AI8Z, 12 bit) Planned; FS 04 Planned

Auto startup: SEW @



Synchronous motors

CMP(40) 50 – 100 (112)	CM3C63 – 100	MOVIGEAR® classic	MOVIGEAR® performance

Sensor technology*: M, G, iB

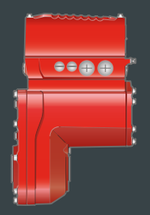
Encoder: AZ2Z, 12 bit; (AZ4Z, 18 bit) Planned; EZ2Z, 12 bit; (EZ4Z, 18 bit) Planned; FS 04 Planned

Auto startup: SEW @

Sensor technology*: M

Encoder: AZ1Z, 12 bit; (AZ3Z, 18 bit) Planned; FS 04 Planned

Auto startup: SEW @

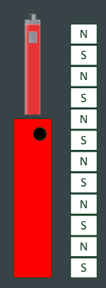


Linear motors

SLC Planned	SL2 Planned

Encoder: (EL3Z, < 1 mm) Planned; FS 04 Planned

Auto startup: SEW @



Key

Motor monitoring – Vibration, temperature	M
Gear unit monitoring – Vibration, temperature, oil condition	G
Intelligent brake rectifier – Brake control, temperature, wear	iB
Control without encoder	
Incremental encoder	Ink
Single-turn absolute encoder	S
Multi-turn absolute encoder	M
Functional safety possible	FS 04
Electronic nameplate	SEW @
Planned function	Planned