



*Electric & Hybrid Drives*

# Heinzmann GmbH & Co. KG

## Electric Drives

Am Haselbach 1  
D- 79677 Schönau (Black Forest)

<http://www.heinzmann.com/en/e-motor>





Electric & Hybrid Drives

## HEINZMANN Development

Past

HEINZMANN today

**1897** Component manufacturer

**2016** System supplier

**1992** HEINZMANN GmbH

**2016** HEINZMANN Group  
including HEINZMANN UK, HEINZMANN Shanghai, HEINZMANN Korea,  
HEINZMANN India, HEINZMANN Australia, HEINZMANN Data Process,  
REGULATEURS EUROPA and CPK Automotive as member companies

**1992** 72 employees

**2016** 415 employees

**1992** Head office Schönau

**2016** Representations in 41 countries

**2004** Turnover 30 Mio. €

**2015** Turnover 70 Mio. €

[www.heinzmann.com](http://www.heinzmann.com)



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## The HEINZMANN Group



HEINZMANN  
Head Office  
Germany (Schönau)



HEINZMANN India  
(Pune)



HEINZMANN Australia  
(Brisbane)



HEINZMANN Data Process  
Norway, Bergen  
(Narvik, Bergen)



HEINZMANN Shanghai  
China  
(Shanghai)



REGULATORS EUROPA  
Great Britain, The Netherlands  
(Colchester, Roden)



HEINZMANN UK  
Great Britain  
(Durham)



HEINZMANN Korea  
South Korea  
(Ulsan)



CPK Automotive  
Member of the Heinzmann Group  
CPK Automotive  
Germany  
(Münster)

## Electric & Hybrid Drives Products

- **Disc motors**
- **Wheel hub motors**
- **Motors for battery driven vehicles**
- **Bicycle- and Hybrid motor**
- **Generators for windmills and combined heat and power unit**



## Brushed DC Disc Motors - SL Series

- Flat
- Dynamic
- Versatile
- Robust



**SL 80F**  
~45 W



**SL 100-2NFB**  
~170 W



**SL 120-2NFB**  
~380 W



**SL 160-2NFB**  
~710 W



**SL 180-2NFB**  
~1100 W

## Brushless DC Disc Motors - PMS F Series

- Small size
- Flat shape of construction
- Reduced weight at equivalent power rating
- High efficiency within a broad speed range



**PMS 60 F**  
~380 W



**PMS 80 F**  
~820 W



**PMS 100 F**  
~1,6 kW



**PMS 120 F**  
~3,9 kW



**PMS 150 F**  
~8.2 kW



## Brushless Disc Motors / Generators

Permanently Excited Synchronous Disc Motors with Air or Liquid Cooling

### Types:

PMS: Permanent Motor Synchronous

PGS: Permanent Generator Synchronous



PMS 80  
PGS 80  
~1.2 kW



PMS 100  
PGS 100  
~2.7 kW



PMS 120  
PGS 120  
~6.5 kW



PMS 150  
PGS 150  
~14 kW

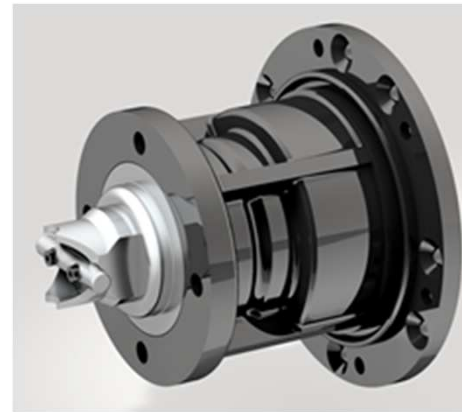


PMS 156  
PGS 156  
~25 kW

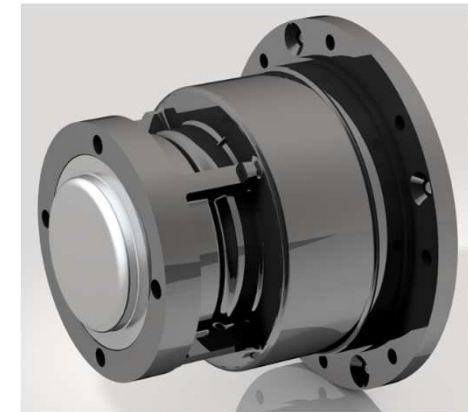
## Additional Components to PMSG Motor-Gearbox combination



PMSG



Gear type 500  
(option. manual decoupling)



Gear type 1500

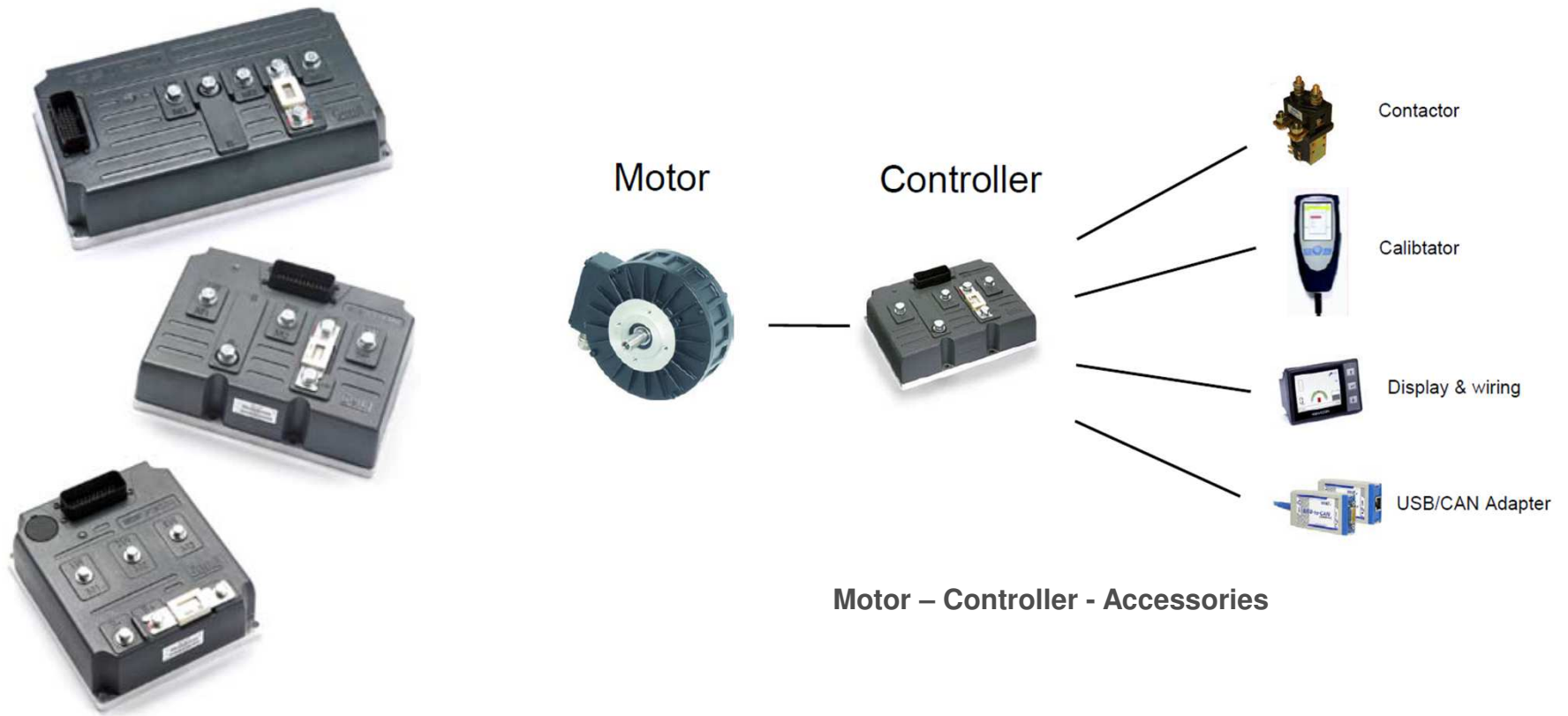


Encoder/ resolver/  
hall sensor etc.



Holding brake

## Additional Components – SEVCON Controller



Different SEVCON controllers

Motor – Controller - Accessories



## Applications Electric Drives

- Industry
- Electric vehicles
- Medical equipment
- Transport systems
- Medicine & Rehabilitation
- Light electric vehicles
- Consumer Products
- Hybrid Technology





## Industry

Wherever robust, compact and durable drives are required

- **Actuators**
- **Pumps & handling**
- **Fans**
- **Production line**
- **Climbing systems**
- **Seeder**
- **Transportation**
- **Moving & positioning**





## Mobility – Electric Vehicles

HEINZMANN is your partner for e-mobility

- **Electric cars**
- **Electric motor bikes**
- **Shearing forced boat drives**
- **E-Scooters**
- **Cargo bikes**
- **Light electric vehicles**





*Light Electric Vehicles*



## Mobility – Light Electric Vehicles

HEINZMANN the e- bike pioneer stands for experience and innovation

- **Cargo bikes**
- **E-Bikes, Pedelecs**
- **Velotaxis**
- **Special e-bikes**



## Medicine & Rehabilitation

HEINZMANN motors are ideally suited for medical technology

- Pumps
- Centrifuges
- Wheelchairs
- Stair climbers
- Bedsides
- Bath lifts
- Amalgam separator
- Special vehicles
- Laboratory equipment





## Energy

Generators with worldwide patented technology.  
We are your partner from the specific development until production in series.



- **Wind powered generators**
- **Combined heat and power unit**
- **APUs**





## Consumer Products

HEINZMANN delivers drives for a wide range of consumer products

- **Carrier vehicles**
- **Trolleys**
- **Cross trainers**
- **Electric motor pumps**
- **Winches**
- **Lawn tractors**
- **Cleaning machines**
- **Power drills**

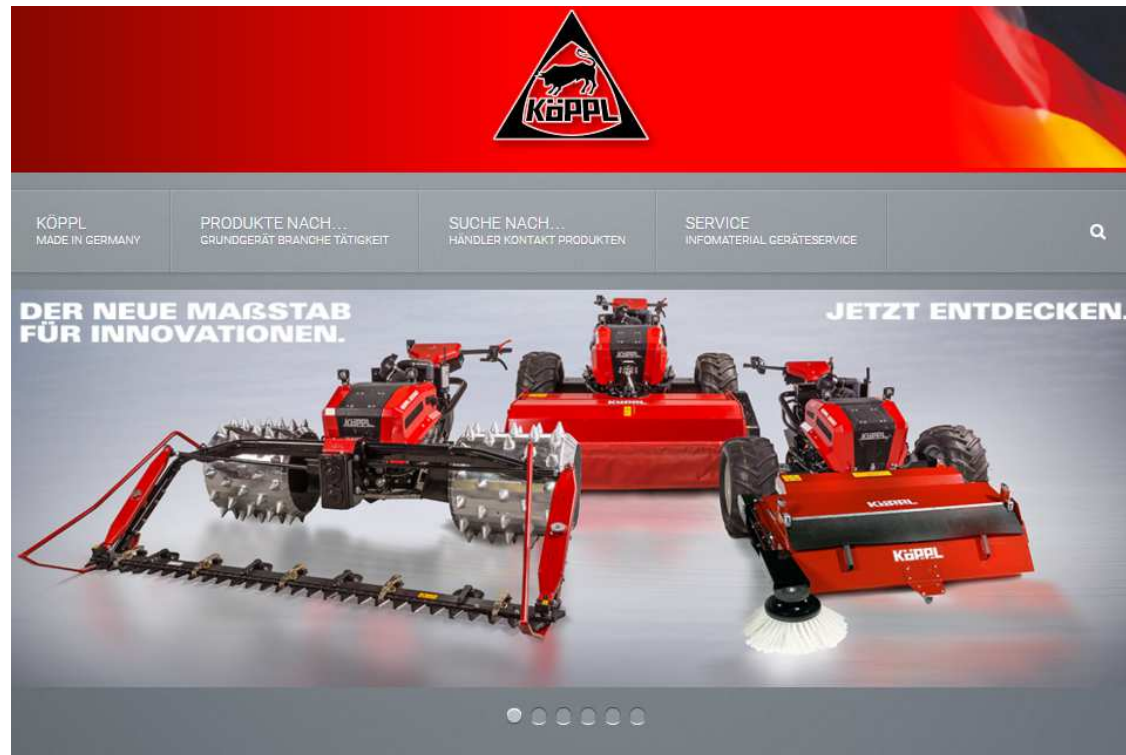


## Hybrid Technology

HEINZMANN develops hybrid drives for industrial vehicles and additional drives systems for hybrid buses

- Construction vehicles
- Excavators
- Wheel loaders
- Trucks
- Telescopic handlers
- Hybrid buses





Application:  
HZM product:

Municipal Vehicles  
PMG 132; PRA 230;



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Application: Tracked Vehicles  
HZM product: PMS 156W



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Application: Ice preparation machine „Olympia“  
HZM Product: PMG 132 standard



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Application:  
HZM Product:

Green Mower  
PMSG 100-500-2-24



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Application:  
HZM Product:

Municipal Vehicle, Hybrid Powered  
PMSG 100-1500



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Application:  
HZM Product:

Agriculture Platform  
PMSG 100-500-2-24



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Application: Snow Mobile  
HZM Product: PMS 120



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Application: Electric Cart  
HZM Product: PMS 100



Application:  
HZM Product:

Rope Winch for Jeep (Wrangler etc.)  
PMG 132 customized IP67

# Reference- List

Amazonen Werke H. Dreyer GmbH & Co. KG		KNAUER Wissenschaftliche Geräte GmbH		Roll-tech	
draisin GmbH		KTM Motor- Fahrzeugbau KG		Samatec GmbH	
EXPRESSO Deutsch- land GmbH		Mahr GmbH		Sirona Dental Systems GmbH	
Fresenius HemoCare GmbH		Mattro Mobility Revolutions GmbH		SKF Linearsysteme GmbH	
Hermann Hartje KG		MIFA AG		SPEEDY Reha-Technik GmbH	
huka b.v.		PROKAR GmbH		ZEITLAUF GmbH Antriebstechnik & Co. KG	
IBAK Helmut Hunger GmbH & Co. KG		R&E Stricker GmbH Reha-Entwicklungen			