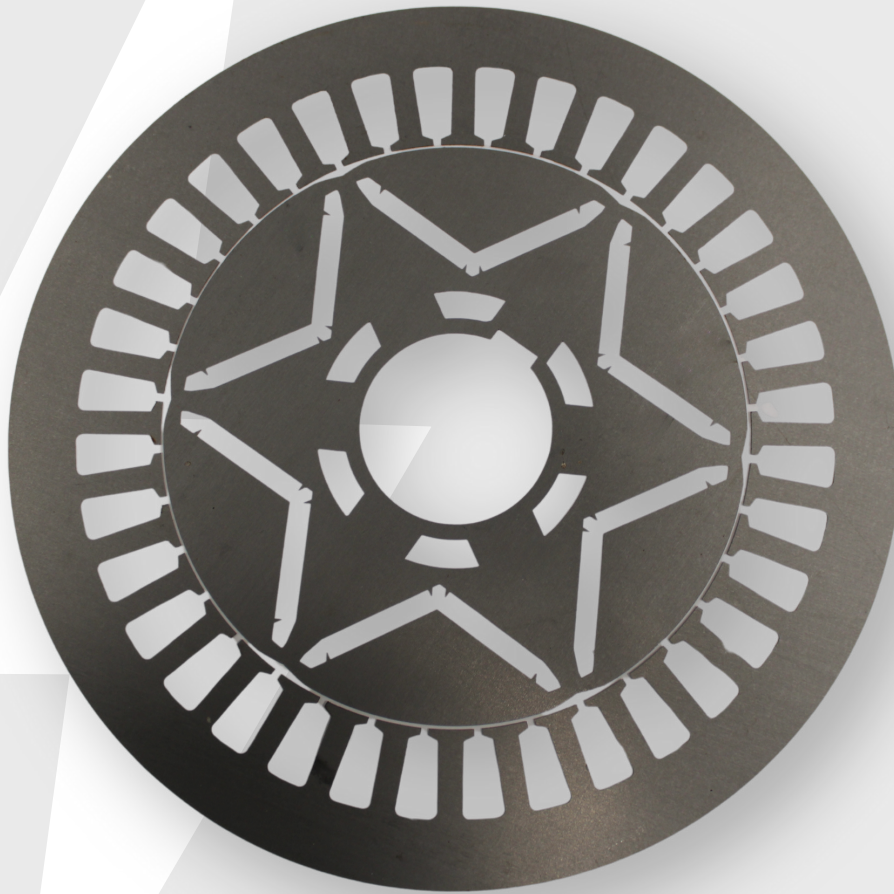


EL MOTION

ELECTRIC MOTORS



Tailor-made electrical components

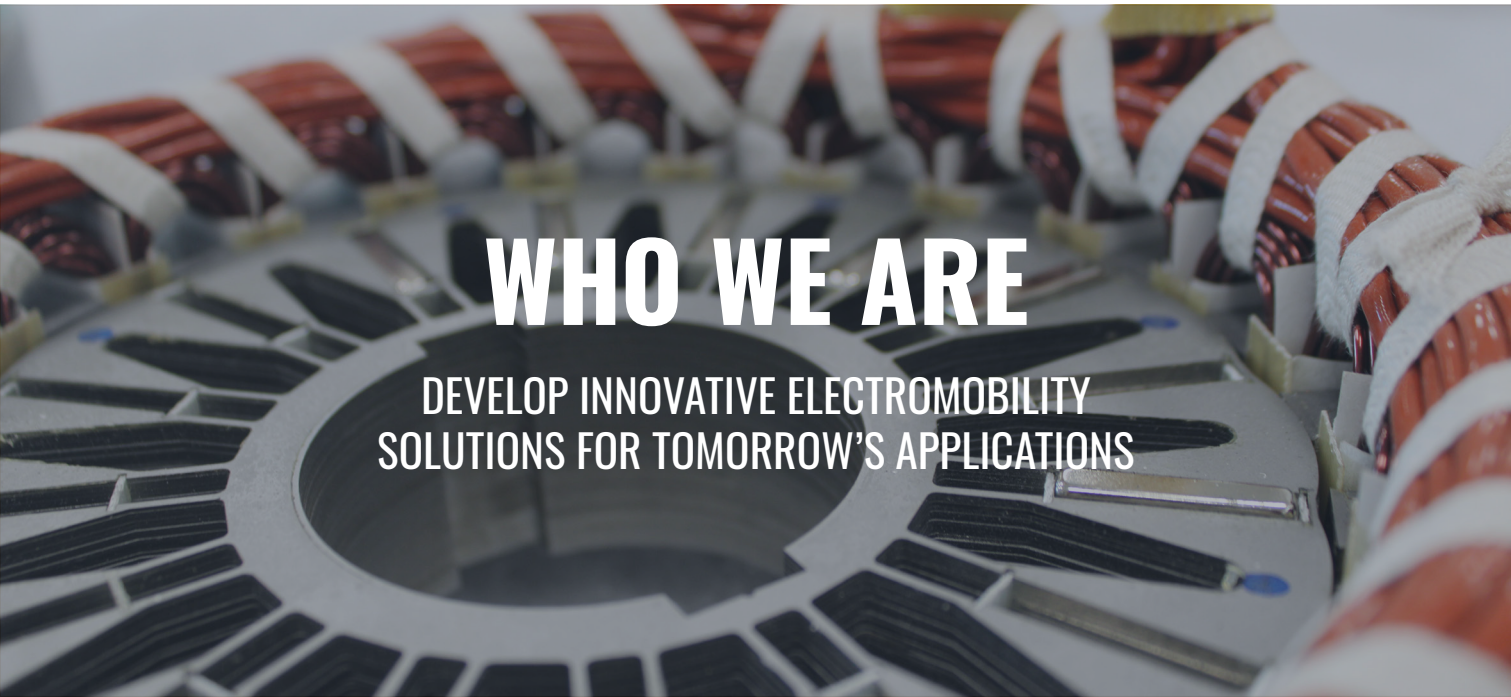


•
**Excellent
compactness**

•
**High
efficiency**

•
**Moderate
weight**

INNOVATION IN MOTION



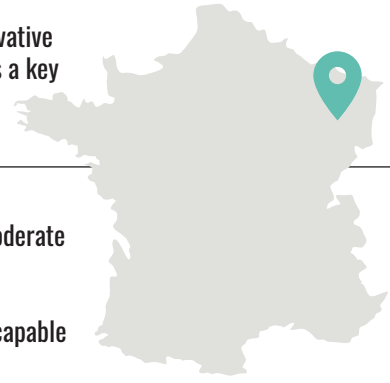
WHO WE ARE

DEVELOP INNOVATIVE ELECTROMOBILITY SOLUTIONS FOR TOMORROW'S APPLICATIONS

DESIGN AND MANUFACTURING OF ELECTRICAL COMPONENTS

EL MOTION is specialized in the design and manufacture of electric motors and electronic power management systems. Born to address demanding requirements, EL MOTION tailors solutions to precise challenges across diverse applications.

Our flexible approach to designing, producing, and marketing electrical components positions EL MOTION as an innovative enterprise. Attentive to customer needs, we continuously introduce fresh solutions in sectors where electrification is a key focus.



INNOVATIVE COMPONENTS FOR MANY APPLICATIONS

Our manufacturing primarily relies on permanent magnets to ensure excellent compactness, high efficiency, and moderate weight. Our magnet sourcing aligns with an economic and ethical vision of their production.

The technical challenges posed to EL MOTION across these sectors all share a common goal: to rely on a specialist capable of fully managing the project.

Each sector has specific needs that EL MOTION can meet.

OUR APPLICATIONS



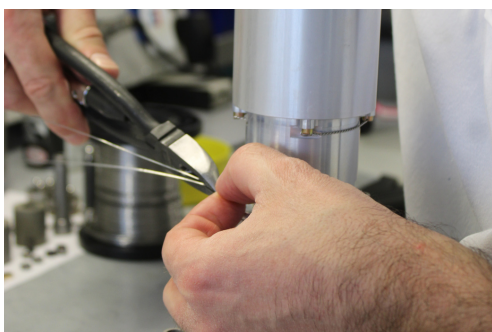
AERONAUTICS



CONSTRUCTION EQUIPMENT



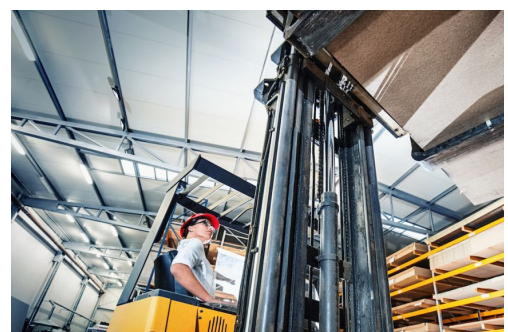
DEFENSE



ADAPTED SYSTEMS



OIL & GAS



MOBILE HYDRAULICS

MOTOR KIT FOR HYDRO LEDUC POWERPACK | GEP7.3

FEATURES AND BENEFITS

THE PRODUCT

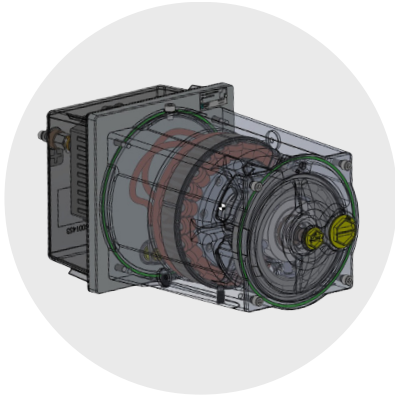
- New generation integrated electro pump unit
- 7.3 cc/rev radial piston pump
- High efficiency brushless electric motor
- Eco-friendly performance
- Compact and lightweight
- Electronic speed control
- Submersion and under-tank capability
- Custom voltage options
- Designed for mobile application

APPLICATION

Particularly suitable for hybrid vehicles, the pump unit is easy to use, compact and light.

The GEP7.3 electric pump unit consists of a brushless DC electric motor, a variable speed drive and a hydraulic radial piston pump.

The oil circulation inside the unit provides optimal cooling of the motor and allows it to operate continuously. It can also be immersed (without the variator) in the oil tank.



EL MOTION has optimized GEP7.3:

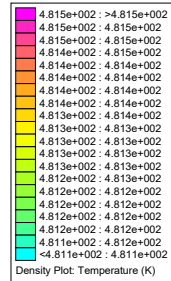
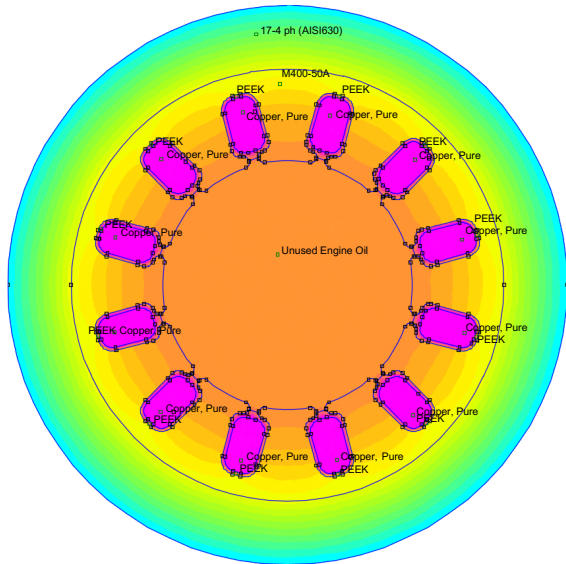
- Increased torque by +25% at constant speed.
- Reduced weight by -4kg compared to the first-generation GEP motor.
- Enhanced acoustic signature.

Available voltages

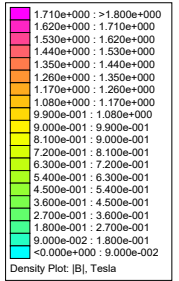
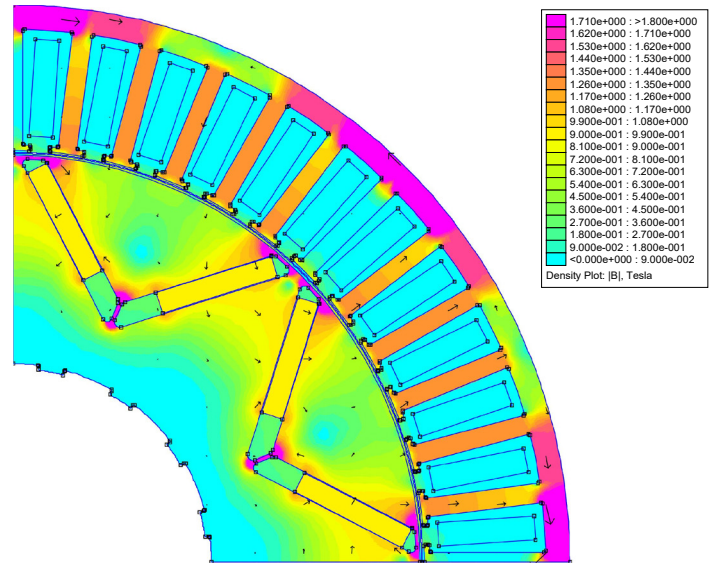
| Vdc | | | | |
|-----|----|----|----|-----|
| 12 | 24 | 48 | 96 | 400 |

GLOBAL ARCHITECTURE

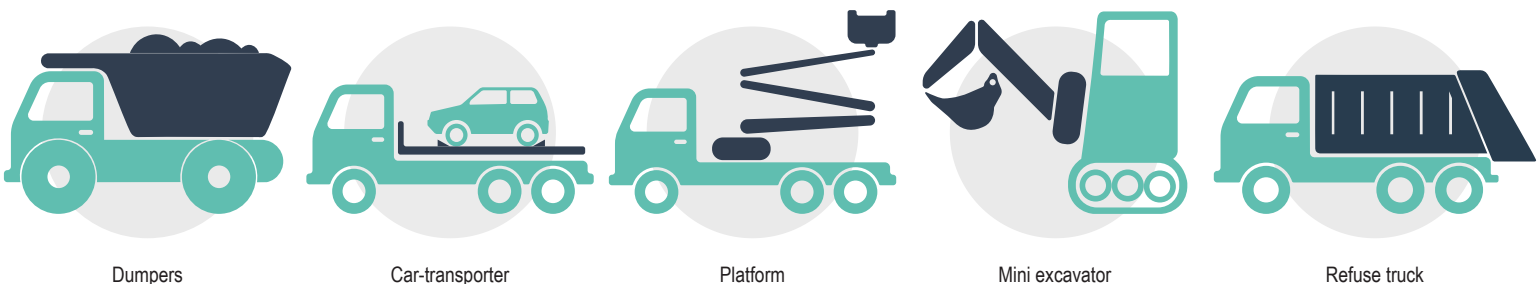
FEA THERMAL SIMULATIONS



FEA MAGNETIC SIMULATIONS



SOME APPLICATIONS



Dumpers

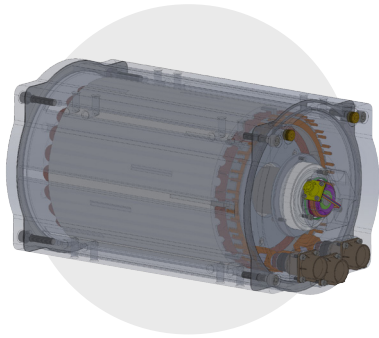
Car-transporter

Platform

Mini excavator

Refuse truck

FEATURES AND BENEFITS



THE PRODUCT

- Tailored for hydraulic pumps and compressors
- Compact and high-performance
- Optimized for hydraulic pumps
- Robust rotor design
- Reduced mass with modular design
- Neodymium-Iron-Boron permanent magnets
- DIN ISO14 Compatible coupling
- Standard 5V SIN/COS sensor
- Hydraulic Oil and glycol-water cooling
- Optimum performance for a range of hydraulic applications

TECHNICAL DATA AT 80°C GLYCOL WATER

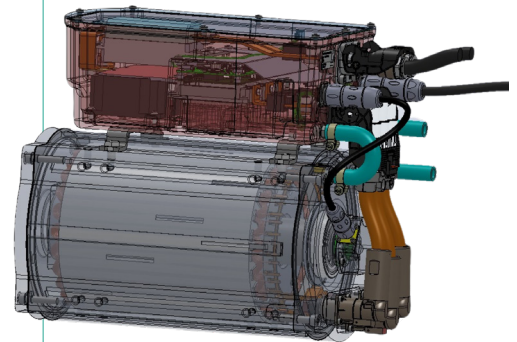
| Motor technology | Operating temperature range | Temperature range with liquid cooling | Length mm | Diameter mm | Voltage Vdc | Power kW | Torque Nm | Maximum speed tr/min | Current A | Weight Kg | Refrigerant flow rate (Water glycol) L/min | IP Protection |
|------------------|-----------------------------|---------------------------------------|--------------|----------------|----------------|-------------|--------------|-------------------------|--------------|--------------|---|--------------------------------|
| | °C | °C | | | | | | | | | | |
| IPM | -20 / +55 | -40 / +120 | 447 | 230 | 650 - 800 | 76,5 | 261 | 2800 | 120 | 60 | 6 | IP 67 IP 69K ⁽¹⁾ |

⁽¹⁾ On request

INVERTER VEL350 L

THE PRODUCT

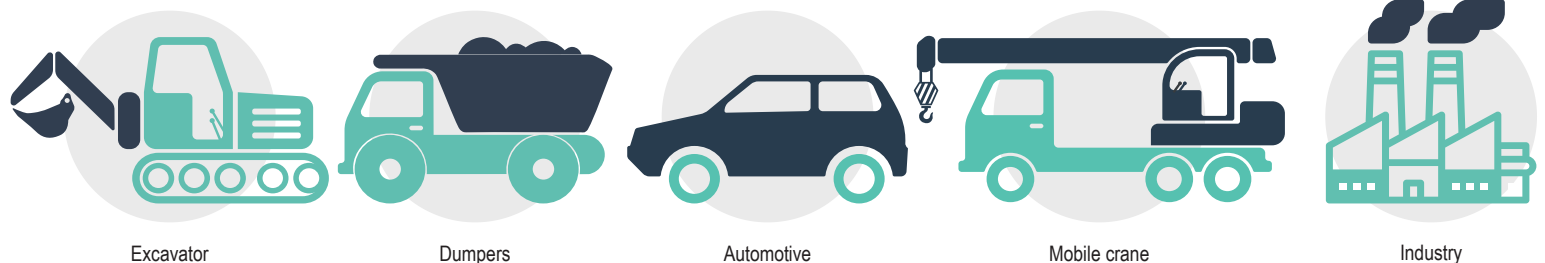
- Advanced inverter technology with 4 quadrant SPWM drive
- High supply range of 650 to 800 Vdc
- Maximal current of 300 Arms
- Efficient cooling system (water 50% / glycol 50%)
- Qualified with ME230 to made ePTO ready to start
- Customizable Voltage and current
- Optimized compact design on ME230



TECHNICAL DATA

| Inverter | Voltage | Current | Refrigerant flow rate (Water glycol) | Weight | Feedback |
|----------|-----------|------------|--------------------------------------|--------|----------|
| | Vdc | A | L/min | Kg | |
| SPWM | 48 to 800 | 100 to 550 | 6 | 10 | Resolver |

SOME APPLICATIONS



Excavator

Dumpers

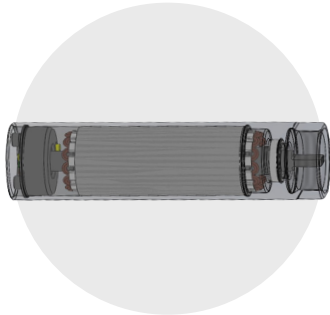
Automotive

Mobile crane

Industry

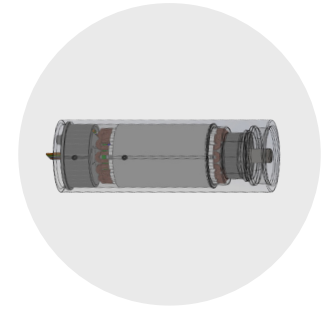
MOTORS FOR HARSH ENVIRONNMENTS

ME 22



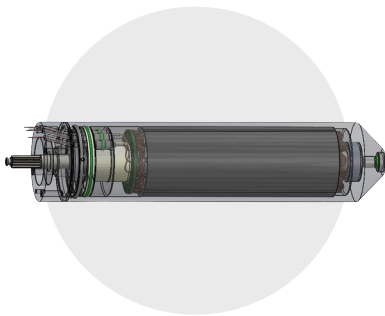
| Internal pressure resistance bar | Type of motor | Temperature (°C) | Torque / Performances | | | Lenght mm | Diameter mm |
|-------------------------------------|---------------|-----------------------------|-----------------------|--------|-----|--------------|----------------|
| | | | Vdc | rpm | Nm | | |
| 2000 | Brushless | -20 / +175 (oil cooling) | 24 | 20 000 | 0.1 | 79 | 22 |

ME 30



| Internal pressure resistance bar | Type of motor | Temperature (°C) | Torque / Performances | | | Lenght mm | Diameter mm |
|-------------------------------------|---------------|-----------------------------|-----------------------|------|------|--------------|----------------|
| | | | Vdc | rpm | Nm | | |
| 2 000 | Brushless | -20 / +175 (oil cooling) | 48 | 5500 | 0.14 | 90 | 30 |

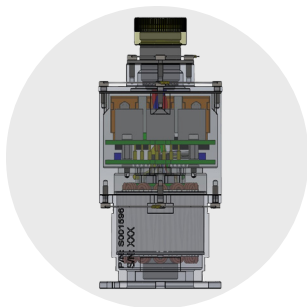
ME 57



| Differential pressure resistance bar | Type of motor | Temperature (°C) | Torque / Performances | | | Lenght mm | Diameter mm |
|---|---------------|-------------------------------|-----------------------|------|----|------------------------|----------------|
| | | | Vdc | rpm | Nm | | |
| 400 | Brushless | -20 / +120 (water cooling) | 600 | 3000 | 8 | 241 (without shaft) | 57 |

CUSTOMIZED PRODUCTS FOR AERONAUTIC / DEFENSE

THE PRODUCT



Operates between 18V to 32V
 Delivers 1.44Nm of torque at 3000 rpm
 Offers two rotation directions, selectable via two terminals, mimicking a DC machine.
 Integrated Analog Electronics
 DO160 Qualified
 Built-in Thermal Safety
 Motor drive variable displacement hydraulic pump
 Landing gear application

SOME APPLICATIONS



Driller



Defense



Truck mixer

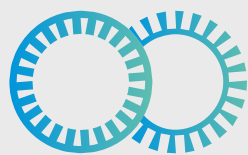


Oil & Gas



Aeronautic

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