



KOLEKTOR

ELECTRIC MOTORS & DRIVES SOLUTIONS FOR MOBILE MACHINES

PERMANENT MAGNET BRUSHLESS MOTOR FOR
ELECTRIFIED OFF-HIGHWAY MOBILE MACHINES

KOLEKTOR Mobility

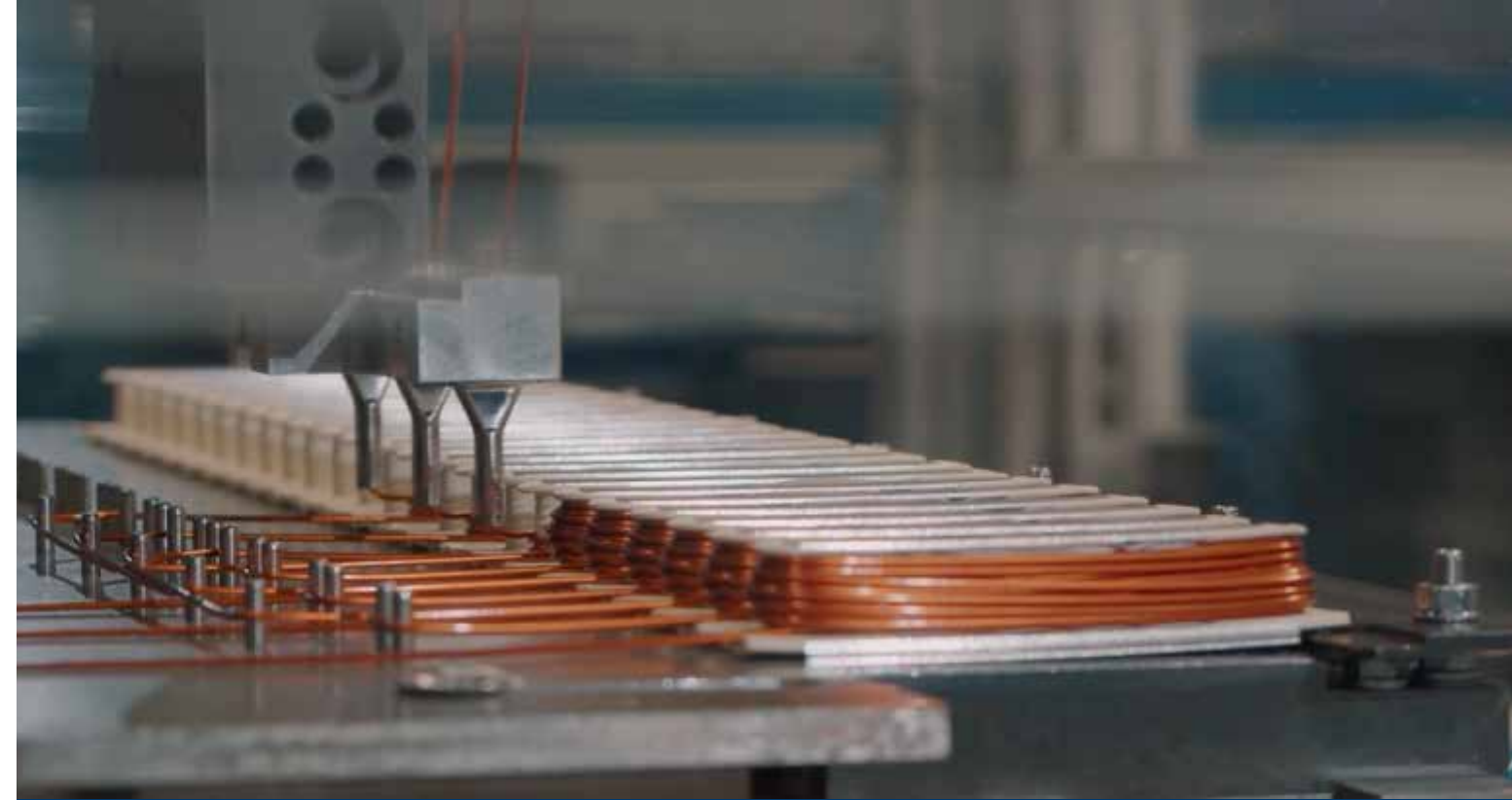


With **60 years of tradition** and experience in the development and manufacturing of components and systems for **e-mobility**, we are positioned among the most reliable global technology and know-how providers of comprehensive solutions in the field of **brushless permanent magnet synchronous motors**.

We offer our business partners a wide range of in-house technical knowledge and manufacturing expertise.

Beside desing & manufacturing our services include collaboration and support for business partners in the initial project phases, focusing on defining the technical, quality and validation requirements for the product.

The development and validation of the product are based on the V-model of electro-mechanical system and embedded software development, integration, and verification.



Over **20 years of experience**



Product **development** of systems



In house production of **electronics, motor components** and **systems**



Strong competencies in motor control, motor design and industrialisation technologies

E-MOTOR SOLUTIONS FOR OFF-HIGHWAY ELECTRIFIED MOBILE MACHINES

CONSTRUCTION



AGRICULTURE



MATERIAL HANDLING



MUNICIPAL VEHICLES



APPLICATIONS / FUNCTIONS OF MOTORS FOR EMM

- **TRACTION**
- **POWERING OF HYRAULIC SYSTEM**
- **AUXILARY POWER SYSTEMS**
- **POWERING OF ATTACHMENTS & TOOLS**
- **POWER TAKE OFF**
- **LINEAR MOTOR / ACTUATOR**

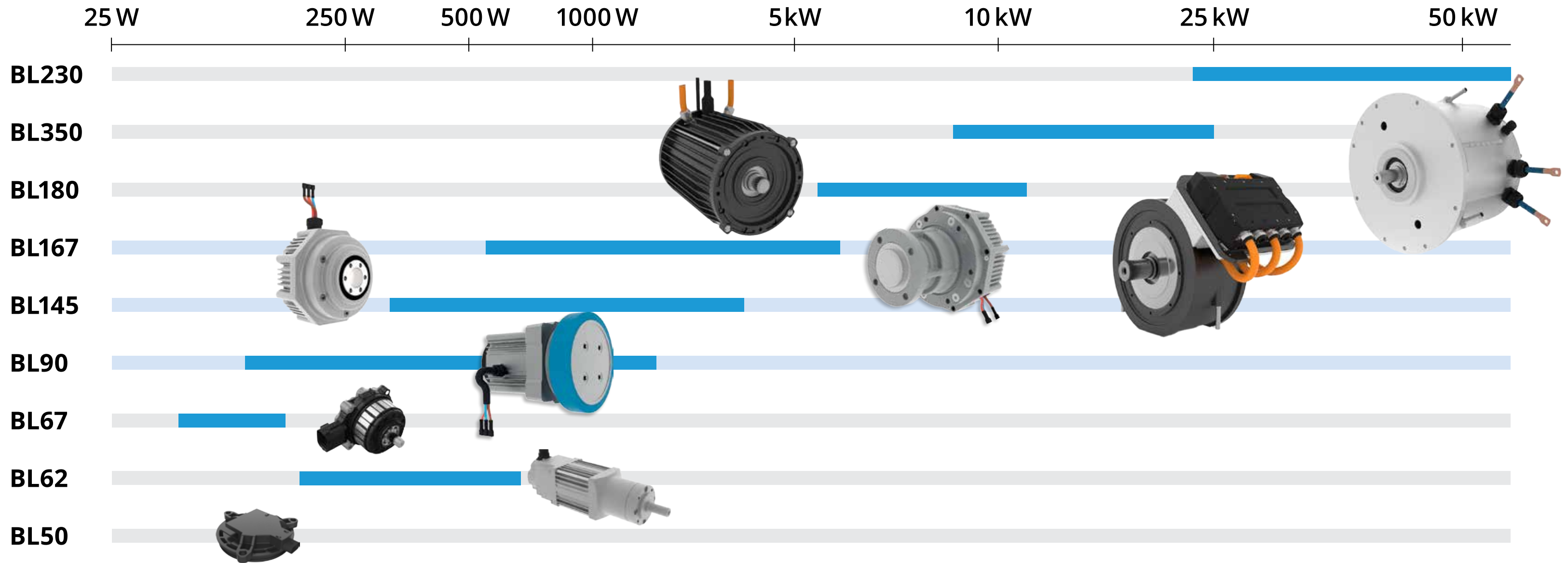


PERMANENT MAGNET BRUSHLES MOTORS

- **IN-HOUSE SIMULATIONS & DESIGN**
- **SCALABLE DESIGNS**
- **SURFACE MOUNTED MAGNETS**
- **OVERMOLDING CAPABILITIES**
- **GEARBOX INTEGRATIONS**
- **DIFFERENT ENCODERS**
- **ELECTRO-MAGNETIC BREAKS**
- **VARIOUS WINDING TECHNOLOGIES**
- **AUTOMATED PRODUCTION**



PERMANENT MAGNET BRUSHLESS MOTORS AND DRIVES






Typical values of continuous mechanical power

The chart enumerates typical characteristics associated with each motor group. Variations in motor length, corresponding to distinct values of Nominal torque, are discernible within each motor group.




Values in presentation correspond to measured motor characteristics at 23 C ambient temperature. Increased operational values for S1 and S2 can be achieved through enhanced heat dissipation from the assembled motor winding

MAIN TRACTION MOTORS

MOTOR SIZE		Nominal Voltage	Nominal power	Peak power	Motor size / weight
BL230		400 V	50 kW	n/a	dia = 270 mm L = 220 mm 55 kg (2)
BL350		60 V	25 kW	32 kW	dia = 420 mm L=200 mm 110 kg (1)
BL180		48 V 96 V	6kW - 12 kW	10kW - 20kW	dia = 220 mm L= 250-300 mm 22 - 27 kg





(1) - with assembled motor control unit
 (2) - with separated motor control unit

MAIN TRACTION MOTORS

MOTOR SIZE		Nominal Voltage	Nominal power	Peak power	Motor size / weight
BL167		24 V 48 V	500 W - 3,5 kW	800W - 4 kW	dia = 195 mm L=115 mm 8 kg
BL145		24 V 48 V	300-500W	up to 1kW	dia = 170 mm L=130 mm 7 kg (3)
BL90		24 V 48 V 96 V	250-600 W	up to 1,0 kW	dia = 140 mm L = 220 mm 9 kg (3)

(3) - with integrated gearbox, brake and encoded

AUXILIARY MOTORS

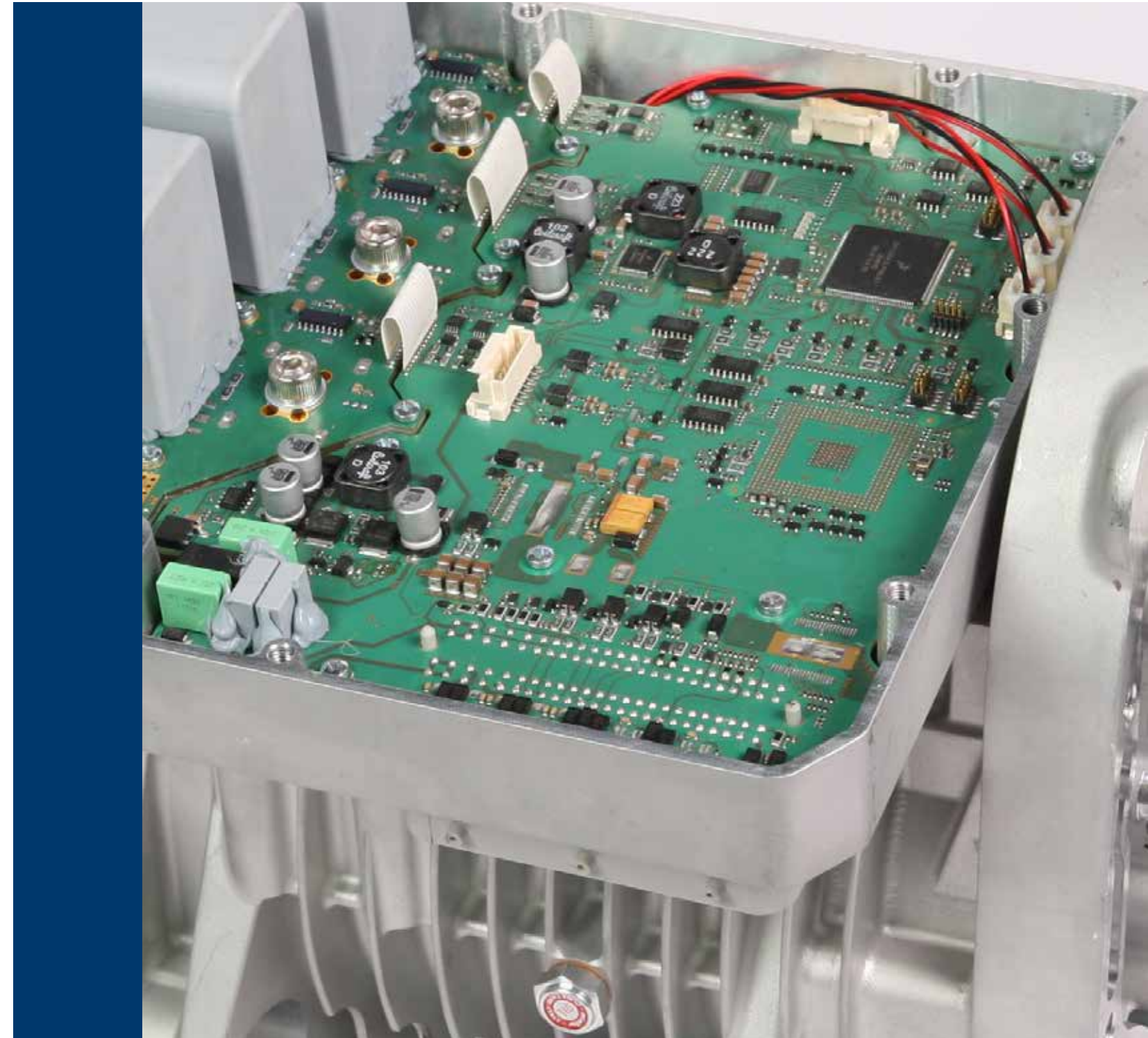
MOTOR SIZE		Nominal Voltage	Nominal power	Peak power	Motor size / weight
BL90		24 V 48 V 96 V	250-600 W	up to 1kW	dia = 140 mm L = 220 mm 9 kg (3)
BL67		12 V 24 V	up to 200 W	up to 260 W	dia = 70 mm L=80 mm 0,8 kg (4)
BL62		24 V 48 V	up to 400W	up to 800 W	dia = 70 mm L=230 mm 2,2 kg (4),(3)
DC LINEAR MOTORS		24 V	up to 400 W	n/a	versus

(3) - with integrated gearbox, brake and encoder

(4) - with integrated motor control unit

MOTOR CONTROLLERS

- IATF 16949 AND ISO 26262 CERTIFIED
- AUTOMOTIVE SPICE LEVEL 2
- IN-HOUSE EMS
- DC OR AC POWER SUPPLY
- LOW & HIGH INPUT VOLTAGES
- MOTOR INTEGRATED SOLUTIONS
- GAS & MEDIA TIGHT ELECTRONICS
- SPEED OR TORQUE CONTROL
- LIN & CAN COMMUNICATION





ABOUT US

- HEADQUARTERS | **Idrija, Slovenia, EU**
- **3369** employees
- EUR **396 million** in turnover
- **18** legal entities
- **FIELDS** | passenger cars,
commercial vehicles, industry
- Following the megatrend of the
green transition to a **carbon-free society**

*All information is related to the fiscal year 2023