

# Flexible components for innovative and sustainable ENERGY TECHNOLOGY!

Realising your ideas for unique drive and energy storage systems



Linear Motor Drives – Energy Storage Systems – Power Conversion

## Storing and Transferring Energy

#### About Us

- > 25 years of experience in power electronics
- ➤ Experience of 600 MW installations worldwide
- > 102 employees in Switzerland, Germany and Bulgaria
- > 300 projects to prove we are your partner of choice



#### Do you have individual components and ideas, but are you struggling with the realisation of your project? Our mission is to combine individual components to create an overall design.

We are pioneers in the technology industry and in the field of power electronics and drives, driving and implementing technological advances in the international marketplace. Our team is made up of highly qualified engineers with a talent for finding unusual solutions. They will support you throughout the product life cycle. We have been developing, manufacturing, commissioning, and maintaining technology for over 25 years and have successfully completed over 300 projects worldwide.

Our aim is to contribute to a sustainable energy transition. And that is why we are working with MyClimate to reduce our carbon footprint in the long term.

#### **Our Success Story: Some of our Milestones**

▶ 2014 ·····	2017 ·····	2018		2020
Product launch FC-SCES product range Super- Caps-ESS / Commission- ing 5 MW battery power plant WEMAG in Schwerin (Germany)	BDEW certification of the FlexConvert bat- tery inverter range	 Company (GmbH) was founded in Hamburg / Certification "Safe Torque Off Interface" for drive applications and LSM	Product launch of FlexConvert PCSU	Product launch of FlexConvert FC-BESS + IDT Energy Management System

## Leading Technology: A scope of services that make a difference

#### Powerful Drives: Linear motor drives that provide the movement you need

At Indrivetec AG we design and manufacture high-performance frequency converters and linear motors. With this dynamic combination, we create customised turnkey systems that set your projects into motion. Setting new standards in performance and speed, our IDT linear synchronous motor drives are used primarily in rollercoasters. The use of additional energy storage systems based on SuperCaps is an ideal complement; it provides the required peak power without overloading the public grid.



#### Concentrating Energy: Our energy storage systems (FlexConvert-BESS-Single, Dual, Triple and SCES)

We are developing power electronic inverters to be used in energy storage systems. Flexible energy conversion systems as charging/discharging devices are essential to optimise the use of electrical energy storage systems. SuperCaps are double-layer capacitors that can absorb and release high currents in an instant. In the context of renewable energy sources and electromobility, rechargeable batteries with different electrochemical cells are ideal as energy storage devices for highly dynamic grid-connected and off-grid applications.

Our inverters are VDE-AR-N 4110-certified and comply with the latest European grid standards. They provide a reliable power supply for energy storage systems and stand-alone power grids. We design energy storage projects and provide support throughout the entire product lifecycle.



#### Maximum Performance: The Indrivetec frequency converters

Our high-performing inverters with 2- or 3-stage technology use the latest IGBTs. The flexible use of semiconductors from different suppliers enables us to respond dynamically to changes in the market. Our IGBT inverters are ideal for ASM or SM drives. Power ratings up to 10 MW and voltages from 300 V AC to 1 kV AC are standard.



#### Seamless Performance: Maintenance, Service and Repair

We make sure that your equipment and systems are in good working order: Our comprehensive range of services includes long-term support. Maintenance, replacement, and repair of components will restore your equipment to its original condition and significantly extend its service life. To minimise the amount of maintenance required, we use remote maintenance where possible. In the event of a fault, our experts have access to the system network and, if necessary, provide on-site assistance.





## Our Customer Stories: References of Success

#### **Power Conversion Systems FlexConvert-PCS**

WEMAG, TWL, Aggreko, Autarsys, Tilos, efa, Centrica

#### WEMAG twl aggreko autarsys

#### Power Conversion System Units FlexConvert PCSU

Leclanché, BASF, Allset, John Cockerill, DC Therm





#### **PHANTASIALAND – TARON**

Linear motor system for the catapult drive of the "Taron" rollercoaster, broke four records worldwide

**Energy Storage Systems FlexConvert-BESS** HMB, WEMAG, Jost AG, Envolta, Rollplast, BASF, INO-HUB

IB, WEMAG, Jost AG, Envolta, Rollplast, BASF, INO-HUE



#### **PORTAVENTURA – RED FORCE**

Linear motor system for the fastest LSM catapult rollercoaster in Europe





Wir legen grossen Wert auf Beratungsqualität und verfügen in jedem Versicherungsbereich über Fachspezialisten. Gerne beraten wir Sie mit unserem umfangreichen Fachwissen. Sie sind einzigartig. Wie wir auch. Einfach 08/17.

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## Performance in a Nutshell: Our Service

#### Technically and economically sophisticated solutions – Engineering

Your unique requirements demand unique solutions. In addition to our standard product range, we design and develop electronics, power electronics, drive systems and energy storage systems for your individual project.

#### Efficient Project Supervision – Project Management at Indrivetec

Efficient project management is key to developing integrated solutions. From planning and defining your objectives to tracking milestones, our project managers have extensive experience in planning and implementing complex projects in electrical design, power electronics, energy storage and linear motors.





#### From the Idea to the Final Product – Production

We're here to help you with your entire product design cycle. Indrivetec is able to manufacture prototypes, single units, systems and large series. In doing so, we constantly consider new research and high-quality procedures. It goes without saying that we use environmentally friendly technologies and sustainable materials as well as state-of-the-art manufacturing facilities to create sustainable and economical solutions.

STORAGE

## Hybrid Kraftwerke: So geht Energieversorgung in Zukunft!

Unsere Kompetenz. Unsere Verantwortung.

#### Zertifizierte Lösungen

Integrierte Hard- und Software-Lösungen für Netzmessung, -überwachung und -synchronisation

#### Microgrid – kommunikativ

Vielseitige Kommunikationsmöglichkeiten (Schnittstellen und Kommunikationsprotokolle) für die Energietechnik

#### **Umfassende Erfahrung**

Über 20-jährige Expertise in der Automatisierung der Energieerzeugung und -speicherung

#### www.bachmann.info







### Let's work together to make great things happen – Contact Us

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"bricks up" linear motor drives and energy storage systems